CHILD HEALTH SURVEY

OF

NEW YORK STATE

An inquiry into the measures being taken in the different counties for conserving the health of children. Conducted by the Child Welfare Committee of the New York State League of Women Voters.

BY

S. Josephine Baker, M.D., D.P.H.,

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HOW THE SURVEY WAS MADE

Report of the Chairman of Organization

For those who are especially interested in the details of organization in a work of this kind, it seems desirable to give a brief account of the methods that were employed.

The survey was under the direct supervision of Dr. S. Josephine Baker, Chairman of the Child Welfare Committee, and Dr. Dorothy C. Kempf, the Executive Secretary. Both Dr. Baker and Dr. Kempf had the technical experience and background requisite to conduct such a widespread scheme. It is the belief of the committee that similar studies ought not to be undertaken in other states without similar competent technical direction. Volunteer work on a large scale has not hitherto always shown successful results but we believe in this instance that the type of organization that was carried out, both in the central office and in the field, made it possible to conduct successfully what might easily have been a half-accomplished project.

Feeling that other states might wish to follow the example of New York State in finding out just what is being done for children within their borders, it seems wise to outline briefly the methods of organization that were employed and found to be successful.

The subject matter of the questionnaires was carefully thought out at the central office and was prepared under the technical supervision of the Committee and received its approval. The central office force consisted of Dr. Baker, in an advisory capacity, Dr. Kempf as executive secretary, Miss Sworts as field organizer and one stenographer, working in close cooperation with the Chairman of Organization of the League. The latter took advantage of the already organized forces of women within the State. A few temporary organizers were employed for a total of eight weeks. Practically all of the work, however, was done by the volunteers in the field. These numbered well over three thousand. As the purpose of the survey was not only to determine the extent of the work being done for children but also to create

a localized and strong public opinion which could be utilized in further campaigns for child welfare, it seemed wise to make the county the unit for the gathering of statistical information required.

The Committee on Organization therefore began its work by writing to representatives of the League in each of the counties, outlining the plan and asking them to undertake the work of gathering the information we wished. It was suggested to them that a local committee be formed which should include representatives of all of the women's organizations of the county. 54 counties out of the total of 57 included in the state were officially organized on this basis.* In this organization was included the active co-operation of many associations of women who were banded together for some type of civic progress. These included the Albany City Club, Broome County Health Association, Cayuga County Child Welfare Association, Clinton County Red Cross, Plattsburg Civic League—Educational Committee, Hudson Women's Club, Women's City and County Club of Dutchess County, Dutchess County Health Committee, Fulton County Parent Teachers' Association, Batavia Women's Club Federation—Civic Department, Herkimer County Tuberculosis Committee, Livingston County Health Committee, Jefferson County Red Cross, Columbia County Agency for Dependent Children, Fulton County Tuberculosis Committee, Little Falls Women's Civic Club, Women's Club of Suffern, Madison County Women's Club, Amsterdam New Century Club, Fort Plain Mothers' Club, Saint Johnsville Community Club, Montgomery County Charities Aid Association Committee, Niagara Falls College Club, Utica Civic Club, Oswego Women's City Club, Nanuet Civic Club, Lyons Civic Club, Women's Civic League of Troy, Tioga County Home Bureau, Steuben County Tuberculosis Committee and Glens Falls Women's Club.

It was determined to begin our work first with the school questionnaire, as that was considered the simplest and most direct at the time, although later it seemed possible to us that the questionnaire on care of infants was perhaps the easier one to be filled out. The first step was to find out from the State Department of Education the number of schools in the state. The leader in each county was then sent a sufficient number of questionnaires so that each school could be covered and have an individual question

*The counties comprising New York City were not included in this survey.

sheet filled out for it. It was expected that the leader or chairman of the county committee would see that the information for these sheets was obtained by members of the committee, working individually or in small groups, and only in exceptional instances was it thought either legitimate or wise to have the questionnaires filled out by the teachers or principals themselves. This was particularly necessary in order to achieve our desire to have the women become interested in their own school problems.

When the questionnaires were filled out, a special form, which was in effect a county tabulation sheet, was sent to the chairman so that she could tabulate her own returns as well as send in the individual questionnaires. In this way the work of the central office should have been very much lessened, although it may readily be understood that it became necessary for the central office to check up the county tables. We believe, however, that this system has value because it makes the county appear as a unit and gives the members of the committee in that county a general idea of the whole situation rather than an individual idea of the single school that each member may have visited. The same method was followed in the case of the second questionnaire.

In carrying on this work our field organizer, Miss Sworts, made 98 visits to the various counties and altogether 336 personal calls on individuals.

The first questionnaire did not get fully under way until April, 1921, owing principally to opposition which developed in the Department of Education, due to a quite unnecessary misunderstanding. We were obliged to assert our constitutional right to the information we were seeking. We allowed a month for the answering of these questionnaires, and in a few well organized counties, after the roads were open, this proved sufficient. As each county turned in 75 per cent. or more of its questionnaires, we returned to it a summary of results for that county in a form suitable for the local papers, which almost without exception published it. We did this by means of a mimeographed form prepared by a publicist, which required only the filling in of figures and one paragraph relating to the special needs of each county. When about forty counties had reported, an article was published in The Woman Citizen. One in the Review of Reviews followed and editorials appeared in Good Housekeeping and The

Woman's Home Companion. We distributed 2,000 copies of preliminary reports (sent to helpers), 5,000 copies of conditions in schools distributed at fairs and 1,000 reprints of preliminary reports also distributed at fairs, all of which was part of the publicity necessary to persuade each county of the importance of this task. Furthermore, we sent speakers for 26 meetings (other meetings were held by local chairmen using local speakers). We exhibited "The Little Red School House" in 12 counties, the period of time being from two to six days in each county with a demonstration approximately three times a day. The "Little Red School House" was a "portmanteau theatre" suggested by Miss Sworts, designed and constructed by Miss Stella Boothe, and given us as a contribution by the Child Health Organization of America. It represents a rural school as it too often is, and as it should be.

During the summer months, while the schools were closed, we took up the second questionnaire in the same manner. 17 counties supplied the answers without assistance. The others required a personal visit and the work was completed through the cooperation of the county agents of the State Charities Aid Association.

In the fall when the schools were again open the work on the first questionnaire was continued in those counties which had not succeeded in covering 75 per cent. of their schools before they closed. In four out of our 57 counties we were unable to find local organizations which would undertake the work. The entire survey was completed in one year.

Our expenses were the salaries of the staff already mentioned, printing, publicity, and certain sums in a few counties, never exceeding $40.00 for the traveling expenses of volunteers. The other counties raised what they needed for local expenses. The total, including preparation and printing of report, was $7,969.88. This does not include office rent or equipment or the stenographic work, which were a part of the League's contribution.

It is an extreme gratification to the committee that although there seemed to be no special precedent for a survey of this magnitude made by volunteers, we believe it to have been accomplished successfully and we also hope that it will be of value not only to New York State but to all of the other states.

The generosity of our subscribers, the interest of the women of New York State in the welfare of the children, the possibility of having technical direction, and the interest, enthusiasm and

competency of our office staff, made the success of this survey possible. Two benefits are plain: first, a great fund of information has been collected at very small expense; and second and probably far more important, the women of the state have enlightened their communities and educated themselves as to the local health conditions. In this way and to this extent they have fulfilled the highest traditions of the League of Women Voters.

MARGARET NORRIE.

INTRODUCTION

In the late fall of 1920 the New York State League of Women Voters decided to determine the conditions affecting the health of infants and conduct a state-wide survey of children in the State of New York. It was known that there was a state law requiring school medical inspection. The reports of the State Department of Education gave evidence of their intention of enforcing this law. Their authority, however, apparently did not extend to creating the work itself in places where it was needed. The law places upon the local communities the responsibility for employing school physicians and school nurses. The meagre reports that could be obtained from the rural communities seemed to show that in many places little interest was taken in the matter by the local school boards and that, outside of the large cities, there was little health supervision in the schools that was worthy of the name. The State Department of Health has for some time exercised a limited supervision over matters pertaining to the health of mothers and babies. It was evident, however, that the extent of this work was not satisfactory to the State Department of Health, nor was it meeting the needs of the situation that seemed to exist. For these two reasons we felt justified in forming a committee with the object of determining the present conditions and the needs of the future in these directions.

The present widespread awakening of interest in child health has come from two main sources: first, the prominent position given child welfare work in Europe during the world war, and second, the figures of the draft in the United States, showing that approximately 40 per cent. of the young men of this country were found to have physical defects unfitting them for active service. It seemed, therefore, that a large women's organization such as this could not have undertaken a more patriotic service, one where the need was more evident, than to determine the exact status of the health care of children in one of the states. Legisla-

tion affecting the health care of children is undoubtedly needed but such legislation cannot be urged until the present status of such health care is known and there has been formed an intelligent body of public opinion to urge the passage of the proper laws.

Not only was the subject matter of the survey of the greatest importance but it marked a departure from similar work in the past. Studies of this nature have usually been intensive and have required the expenditure of considerable sums of money. It has been felt by many people that a survey made entirely by volunteer workers would be neither adequate nor conclusive. The task the Child Welfare Committee of the New York State League of Women Voters set itself was to carry on a state-wide survey, using the machinery of the State League of Women Voters and depending upon volunteer workers, with the exception of a few paid employees in the central office. The Chairman of the Committee on Organization of the League has prepared a statement for this report, showing how the survey was made.

The Committee on Child Welfare, which was responsible for the methods to be used in making the survey, had in mind three objects: first, to determine the exact status of health care and health work for babies, young children and children in the public schools; second, to make many women in every part of the state familiar with the health care of children in their communities, and third, by virtue of the first two objects, to create a body of intelligent public opinion to act as the nucleus of a force to obtain proper health care for the children of the state, both by means of state legislation and local community action.

The Committee on Child Welfare feels that these objects have been achieved. The survey has been made successfully by volunteer workers. The women who visited the schools have in many instances for the first time learned the actual conditions surrounding the children and have acquainted themselves with the necessary type of health supervision that must be carried on if the children are to be protected in an adequate manner and, probably most important of all, the knowledge thus obtained has resulted in the creation of intense interest and enthusiasm for bettering conditions. Indeed, it may be said that the effort to create public opinion has had a more far-reaching effect than the Committee expected. Both the State Department of Education and the State

Department of Health have been intensely interested in the work that was carried on and it is not too much to assume that some of the progress that has already been made in bettering conditions since this survey was started has been due in large part to the efforts of the League and the information it has gathered.

Another far-reaching effect has been the stimulation of other states to carry on similar work. Certainly, if the conditions found to exist in New York State are any criterion, the necessity for a similar survey in every state in the Union is apparent. It is with the hope that the experience of New York State in this regard may be of some aid and benefit to the other states and also with the belief that the result of this survey will mean greater protection for the children of New York State, that this report is submitted.

The League of Women Voters of New York State consists of an earnest, experienced, active and intelligent group, which has been used to working for a common cause. It has been stated that one of the greatest objects of any investigation to determine the responsibility of citizenship must be the stimulation of that group of citizens to better effort in the future. Certainly, a survey of conditions surrounding babies, young children and children in the schools or in the homes, would be of little value if it resulted solely in the compilation of statistical evidence and not in the betterment of conditions when changes were found to be desirable. New York may not be considered a typical state but certainly it must be considered as a state that has all the conditions that wealth and a place of assumed leadership can give. It may readily be assumed, therefore, that New York State should give all of its children the fullest measure of health protection. It should provide for competent and effective maternity and infant care and give its children the best form of education and the best form of school medical inspection that can be offered. How far it has achieved such a goal, and how far it has fallen short, it has been the effort of this survey to disclose.

S. Josephine Baker,
Chairman.

PART I.

Evolution of Health Problems In Our Schools

Until recent times schools have been thought of as places for academic education. It is only within the last twenty-five years that the effect of school life upon the health of children has been considered. We have become increasingly aware of the fact that there is probably no other time in the life of the individual when so great an environmental change takes place. The transition from the freedom of life which belongs to early childhood to the restrictions and routine of school life is probably the most sudden and drastic that is likely to occur. To take a child five or six years of age, when it is passing through the most formative period of its career from the health point of view, a time when all children are usually active, when they are the personification of energy and motion, and place it in an atmosphere which requires attention, concentration, and above all physical quiet, is to change habits in a way that may have a marked bearing upon the question of proper growth and bodily welfare.

Education is compulsory. If the state assumes this right, taking the child from his home and placing him under the authority of the state or local community for certain hours of the day, it should certainly be also the right, as well as the duty, of the state to provide a clean, safe and hygienic surrounding in which the child shall spend these school hours. Certainly, the minimum requirements in the way of health conditions must be met. Nothing less should be accepted by the parents of this country; much more should be demanded.

School hygienists are aware of the large part that school environment plays in the production of physical defects. Defective eyesight, which is becoming almost universal, is distinctly a school disease. Children on entering school rarely have defective vision. Nearly 30 per cent. of all children who leave school are compelled to wear glasses. Here is an instance where faulty lighting,

bad seating accommodations, insufficient window space, wrong type of text books, dirty blackboards and other deficiencies of school life are responsible. Curvature of the spine is very often the result of the wrong type of seats and desks, and their lack of adjustment to the individual child. Malnutrition and respiratory diseases are a direct outcome of lack of sanitation and result more particularly from inadequate ventilation in school rooms. Infectious diseases are so common an accompaniment of school life that they are often called "school diseases." Epidemics in communities can often be traced to infection that has occurred in school. The method of transmission may easily be the common towel, the common drinking cup, general lack of personal care, inadequate ventilation and absence of health supervision. There are few harmful bodily conditions to which the child is subject that may not have their inception in the enforced segregation of school life.

School medical inspection was started first in this country in Boston in 1894. It was entirely concerned with the detection of infectious diseases. Philadelphia, the second city to establish this form of health supervision, in 1896, followed the same methods and in 1897 New York City was the third city in this country to see the possibilities of school health supervision as a measure for limiting the spread of infectious diseases. It was not until 1905, however, that the further and more important aspect of the relation of the school to health was emphasized. At that time the New York City Department of Health recognized that a well-rounded program to prevent infectious diseases must include some consideration of the general health of the child and its power of resistance to disease. The first step in this program consisted in the institution of a physical examination for each school child to determine its state of health with particular reference to the existence of easily preventable or as easily correctable physical defects.

School health supervision or, as it is more generally known, school medical inspection, has assumed a wider aspect today than was thought possible by the early workers in this field. We have now reached the place where the health supervision of the child of school age has come to mean complete health care of all children from five to fifteen years of age, extending not only into the

school but into the home as well. In the school the prevention of the spread of infectious diseases and the physical examination of each school child are simply the starting point. Health instruction and physical training are important additions. Various forms of specialized activity such as open air classes, nutrition clinics and special classes for children with cardiac disease, defective vision, for the hard of hearing or those who are crippled, are becoming a recognized part of the school health program. Health supervision in this form is provided for by legislation in the greater part of the United States today. In a recent bulletin issued by the United States Public Health Service, it is stated that there are a total of 29 states which have some laws on this subject. In 15 of these states the Department of Education and the Department of Health cooperate in the administration of the law. In six states it is administered by the Department of Education and in eight states by the Department of Health. In nine states with medical inspection laws no state authority is designated to administer the law although certain duties are imposed upon the local authorities. In three states authority is given to local units to employ public health nurses. In nine other states there are no specific laws regarding school medical inspection but some cities have instituted systems of school medical inspection under their general health powers.

New York State has an excellent school medical inspection law. There are ways in which it may be improved but as it stands it includes a comprehensive scheme for adequate health protection. Early in the survey it was found that the fault was not with the state law or the desire for its proper enforcement by the State Department of Education. It became increasingly evident that the non-enforcement of the principles which underlie school health supervision was due not to inadequate legislation or lack of knowledge of its principles, but rather to the inertia of the local educational authorities.

In starting the health survey the State League of Women Voters was looking for definite conditions affecting health. They soon found themselves forced to recognize that the administration of a proper health program could not be effectively carried out unless the administration of the regular school program kept pace with it and was mutually cooperative. One of the most striking

results of the survey has been the clear-cut impression that both the educational program and the health program in each township or school district is dependent almost entirely upon the goodwill and interest of the local school board or individual trustees and the extent to which they are swayed by public opinion. It was found that however extensive or earnest the education or health policy of the state might be, it could be completely blocked by the action of a small board of school trustees or officials who either did not feel that they could afford the money for the type of work in question or who did not see any reason why such work should be carried on at all. Throughout the state, the women who were making this survey were forced to recognize that effective health work was impossible in some communities owing to the antiquated system of innumerable small schools, many school districts and the apparent lack of any willingness to cooperate that might lead to consolidation and improvement of conditions. It is obvious that school medical inspection cannot be carried on without a disproportionate expenditure in schools consisting of three pupils or even ten pupils, yet there are hundreds of such institutions throughout the state, as may be seen by the figures given in another part of this report.

As the greater part of the appropriation for work in both the education and health fields must necessarily be provided by the local community, it becomes increasingly evident that the local community must be the focus of attack and that no system of health supervision or education can rise higher than the level of intelligence of the local community. The survey, therefore, was soon brought into the field of education, not so far as the course of study was concerned, but in so far as the administrative features bear upon the problems that we were considering. It may therefore be well, before outlining the exact conditions that were found, to consider briefly the evolution that has taken place in the educational field in New York State and to indicate what the present conditions are as far as the administration of the schools is concerned and their relation to the health of the children.

The common realization that the system of education in this state has developed so tremendously from such small beginnings has made many of us content ourselves with a feeling of satisfaction at what has been accomplished, and fail to see that great

as the advance has been in this field, it has failed signally to keep up with other lines of progress. Especially is this true in regard to rural education. We are almost unable to understand the point of view from which Herbert Spencer spoke only about 50 years ago, when he argued that taxation of one man's property to educate another man's children was robbery and that the state had no more right to administer education than it had to administer religion. We have admitted the responsibility but have not shouldered it fully.

New England developed in colonial times the principle of a state system of public schools, and it was from this beginning that the typically American system of elementary schools grew; the essential features of this system being that the schools are supported by taxation, supervised and controlled by the state, and free to all children. The fight for free schools in the different states was a slow and painful process in almost every case because of the difficulty in educating public opinion. Indiana at one time passed a law providing that "no person shall be liable for a tax who does not or does not wish to participate in the benefit of the school fund." In commenting on this fact, Finney in *The American Public School* quotes one of the assemblymen as orating: "When I die I want my epitaph written: 'Here lies an enemy of free schools.'" We are apt to wonder at the shortsightedness of such people with a distinct consciousness of superiority, quite failing to realize that we are just as shortsighted today in regard to the needs of the present and future.

Our school district system was established in 1795 when the inhabitants of settled portions of the state banded together for the purpose of maintaining a school, and in 1812 the entire territory of the state was organized into districts and a State Superintendent appointed. It was as late as 1853 that the Union Free District School Law was passed, and it was not until 1866 that New York state made all of her public schools absolutely free.

School systems developed in the same manner in other states but they soon began to enlarge the unit of administration and taxation by changing from a district to a township system. Indiana was the first state to take this step and the others followed rapidly. New York State and Louisiana are the only ones left in which the small district system prevails. This system is recognized through-

out the nation as resulting in inferior administration, wasteful expenditure, unequal taxation, and especially in unequal school advantages. In a recent published report the State Department of Education gives figures to show that the per capita cost of schooling is occasionally nine times as great in one district as it is in an adjoining district in the same township. The same report states that the present school district system has been condemned by every state superintendent and commissioner of education from 1844 up to the present time. The Hon. Sam Young, state superintendent at that time complained that "miserable school houses, poor and cheap teachers, interrupted and temporary instruction, and heavy rate bills are among the permanent calamities incident to small school districts."

At the present time every township has anywhere from eight to 35 separate school districts. In 1917 a law was passed in the hope that it would alleviate this situation. The experience of other states had amply demonstrated the greater efficiency of a larger unit of administration, either township or county, and no other state has returned to the small district system. This law, known as the Township School Law, made the town the unit of administration and taxation, and gave authority to the town Board of Education to determine whether all of the district schools should be continued or whether to bring about a consolidation among certain of them. The immediate result of this law was an active interest in school conditions on the part of the new town boards, and many long-needed repairs and improvements were made. This was simply making up for the neglect of many years, but it resulted in an increase of about 20 per cent. in the school tax, and immediately a complaint arose. It so happened that a regulation had been passed requiring all schools to install sanitary indoor toilets by 1918. This had in reality nothing to do with the Township School Law, but it added to the burden of expense in many districts and was associated with the Township Law in many people's minds. The result was the repeal of the law in 1918 before it was given a fair trial. There was a great deal of misapprehension on the part of the general public in regard to the provisions of the law, and people in rural sections opposed it in the fear that some of their rights and powers were to be taken from them and centralized in the state. The actual facts in regard

to conditions in the schools and their great needs were never brought before the general public with sufficient vividness. As a member of one of the town boards of education wrote in regard to his district "Two or three of the schools are hardly better than hog pens—I wish the people of the state could see them; that would settle most of the kicking." The people of the state did not see them, and were not convinced of their needs.

The township system did not remain in existence long enough to demonstrate its educational advantages, but these have been amply shown in other states. It did succeed in bringing about a temporary improvement in sanitary conditions in a great many schools.

The city schools were originally organized on the district system with the ward forming the school district. The inefficiency and failures of this system were recognized during the middle of the last century and they were met by consolidating all the schools into one unit of administration and taxation. The first city superintendent in the United States was appointed in Buffalo in 1837. Cities in other states immediately began to adopt this system. Rochester followed in 1843, Syracuse in 1848 and New York in 1851. The step in each city was preceded by a bitter fight but this period is long since over and the result is the far more efficient education provided by our city schools.

The school question was put aside during the period of the war, but it must now be brought forward again for the need of a new system of rural education in this state is urgent. It is important in viewing the whole problem to keep in mind the essential need of adequate education and proper protection of public health in any democracy which is to survive, the need of qualifying its citizens to vote intelligently and of fitting them to live in health and efficiency. And it is necessary to realize that the tendency in this country which has brought greatest results has been that of enlarging the unit of administration and taxation in order that more equal opportunity will be provided for all children. The tendency in this country is now distinctly towards the county unit. State aid is given to our schools for many purposes and more and more we are facing the need of having the Federal Government share in the educational responsibility. Such a tendency has manifested itself in the Smith Lever Act in 1914

which provides federal aid to agricultural colleges and in the Smith Hughes Act in 1917 which gives aid to vocational education. This is a simple extension of the principle that it is neither safe nor to our advantage to allow any family or community to remain ignorant because of local conditions of poverty or indifference.

Very few people realize that we still have left throughout this state to a large extent and in practically the same form as in early days what is affectionately and sentimentally referred to as "the little red school house." This type of school building and the training it provided met the needs of agricultural communities one hundred years ago. The past generation, however, has seen a great change in methods of farming resulting from the application of modern machinery and biological and chemical research. It has also seen a fairly extensive migration of the young people from farms to villages and cities, and one of the causes of this desertion of the farms can be definitely attributed to the poor rural schools. At one time the three R's were apparently a sufficient background for a life's work in any field. After 1835 geography, history and grammar appeared as school subjects. The variety of subjects needed now is very much greater. It is time for the rural schools to adjust to this new development so as to continue not only to fit boys and girls for their life work, but to make it interesting and profitable.

The prime requirement in a school should be a well-constructed sanitary building, with proper equipment and sufficient measures taken to conserve the health of the children. This is the absolutely essential foundation for building up a generation of healthy and efficient adults, and it is with this phase of the many sided problem of education that this report chiefly deals. Thirty years ago the school assumed no responsibility whatever in regard to the health of the children beyond a little instruction in physiology and even here the practical bearings of the subject were largely neglected.

There has been developing in this country a newer attitude towards physical "fitness" and well being. We are more and more considering mind and body as one unit and seeing the need of an all round development. The swing is away from a dualistic philosophy.

The schools have held a prominent place among the interests of public spirited individuals from their beginning and school surveys of various sorts have served from the first to bring their needs before the general public. The following is quoted by Judd in *The Scientific Study of Education* from the report of a committee appointed to visit the schools of the township of Taunton, Massachusetts, early in the last century: "Feb. 26th. Visited Mr. Dean's school two times, the scholars were crowded into a small room, the air was exceedingly noxcious. Many children were obliged to tarry at home for want of room, and though the school was kept only a few weeks they were deprived of its advantages. A want of books was the complaint. The committee were anxiously desirous that this evil might have a remedy and were of the opinion it may be easily done." From the conditions still prevailing in our schools it is to be feared that this committee may have been unduly optimistic.

OUTLINE AND PLAN OF SCHOOL SURVEY

Keeping in mind the fact that volunteer investigators were to be used, many of whom would be without special training or experience in this sort of work, the questionnaire covering the problems to be dealt with in this survey was drafted with a good deal of care so as to avoid as far as possible questions involving judgment. For the same reason sources of information are indicated on the questionnaire and an occasional explanation of a question or state law has been added which would have been unnecessary if the questionnaire had been designed to send directly to the teachers. The latter method would have been far simpler if the object of the survey had been solely the collection of the data, but one other object, that of bringing the schools directly into the line of vision of the communities responsible for them, would not have been accomplished. Very frequent answers given by teachers to the question "What is the greatest need in this school?" were: "interest of community", and "co-operation of parents". In a small measure this piece of work has answered and is still answering this need, through the activity of our local committees. It is one more step in the long slow process of educating public opinion.

The questionnaire that was used is given below. It is divided into seven main subjects: medical inspection; health instruction;

physical training; condition of buildings; special classes; hot lunches; and use and supervision of play time. An additional space is provided for special needs in individual schools. The answers to this series of 163 questions have been compiled in Tables I and II.

QUESTIONNAIRE NO. I

Health of the School Child

(Please read the entire questionnaire carefully before starting to answer the individual questions.) Public schools only are included in this investigation.
Name of Invstigator?
Address
Name of school visited?
Supervisory District?
County?
No. of children attending?

I. Medical Inspection.

1. Is a physical examination made of every child who does not bring a health certificate from the family physician?
   (The law requires it once a year.)
   a. How often?
   b. In what school grades?
   c. How much time is given to examination?
   d. Are clothes removed to the waist?
   e. Are heart and lungs examined with a stethescope?
   f. Are reports made to teachers?
   g. Are reports made to parents?
   h. Are records kept? Where?
   i. Are notices sent to parents announcing date when examinations will be made? Are they invited to be present?
   j. Is the health officer employed as a medical inspector? Or some other physician?
   k. How much time does the examiner give to school work?
   l. What is the examiner's salary?
   m. Is a thorough physical examination made before working papers are given?

2. Are class rooms visited regularly by a doctor or nurse?
   (Ask the teachers.)
   a. How often?
   b. What school grades?
   c. What symptoms are noted?
   d. Are records kept? Where?

3. Are eye and ear tests made every year? (Ask teachers.)
   a. By whom?

4. Is there a school nurse for your district? (See nurse if possible.)
   a. Full time?
      (It is desirable to have one for every district with 1000 or more children.)

b. Part time?
   (1) How much time does she give to the school work?
c. How much supervision does she have from the State Dept. of Education?
d. Does she co-operate with the teachers? (Ask the teachers.)

5. Facilities for treatment.
   a. Does nurse visit children in homes to see that proper care or treatment is obtained?
   b. Are medical and surgical clinics available? (Ask nurse.)
   c. Are dental clinics available? (Ask nurse.)
   d. Are there sufficient facilities for treating the children?
   e. What proportion of children needing treatment receive it?
   f. Does the follow up work seem to be satisfactory?
      (1) In what way does it fail? (Ask teacher and nurse.)
6. Communicable diseases.
   (Ask the teacher or principal for the answers.)
   a. Is a physician called to the school to see every suspected case?
   b. Is a nurse called to see suspected cases?
   c. Does teacher report all suspected cases to health officer when physician is not called? (The law requires her to do this.)
   d. After one case has been excluded from school does the medical inspector visit the school daily to examine the other children? Is a daily visit made by the nurse?
   e. Are teachers instructed in methods of early diagnosis?
   f. Are teachers provided with thermometers and taught how to sterilize them?
   g. Is certificate of board of health or of medical inspector required to readmit child to school? (Required by law.)
   h. Are names of children who have been absent from school for three days without assigned cause sent to medical inspector?
   i. Has it been necessary to close the school for any epidemic during 1920? What disease?
      For how long?
   j. Have teachers copies of the chart containing "Rules for Isolation and Exclusion from Schools"?
   k. Is Disease Census Card filled out each fall by parents?
   l. Does teacher make out Susceptibility Chart?
      (j, k and l are issued by the Dept. of Education.)

II. Health Instruction. (Ask the teachers.)

1. Is any health instruction given?
2. In what grades is it given?
3. Is it a regular part of the school work?
4. Is it left to the initiative of the individual teachers?
5. Is instruction given by the school nurse?
   a. How often?
6. Is it taught as a separate subject?
7. Is it taught in connection with other subjects?
8. Is the importance of the following things taught?
   a. Long hours of sleep with windows open?
   b. Cleanliness of person?
   c. Brushing teeth?
   d. Clean food handled by clean fingers?
   e. Drinking milk, eating green vegetables or fruit?
   f. Washing hands before each meal?
   g. Covering mouths and noses when coughing or sneezing?

9. Are under-weight children taught the necessity of rest?
    a. Are cots provided for them?
        (1) In open air?
        (2) With blankets?
10. Do you have health leagues or clubs?
    a. Under school control?
    b. Under outside control?
    c. Are they effective in interesting children in the practice of health habits?
11. Have you had any health exhibits? This includes poster contests, playlets, etc.)
12. Ask teacher what her suggestions are for improvement.
13. Is there any method used for checking up to find whether children are developing health habits?
14. Are there scales in the school?
    a. Are children weighed regularly? And measured?
        (1) Do children keep a class room weight record?
        (2) How often are they weighed?
            (Monthly weighing is desirable.)
        (3) Are reports sent to parents?
        (4) Are records kept in the school?

III. Physical Training. (Ask the teacher.)

1. Is there an instructor in physical education?
   (There are 800 in the State.)
2. Is the work compulsory?
3. What are the average hours a week required for each child?
4. Is a physical examination made before allowing child to enter athletic contests?
5. Are daily exercise periods given during the school hours?
    a. Number of minutes?
    b. Are windows opened wide?

IV. Condition of Building. (These questions can be answered by the teachers, but it is desirable for the investigator to inspect the school personally.)

1. Is a sanitary survey made of the school, its equipment and maintenance each year?
    a. By whom?
2. How often are class rooms cleaned?
    a. How satisfactory is this cleaning?
    b. Who does it?
3. What is source of water supply?
    a. Municipal?
    b. Private well?
        (1) Is its purity tested? How often?
    c. Are drinking fountains provided?
    d. Are there individual drinking cups?
4. How many lavatories are provided?
    a. One for how many children?
    b. Are there individual towels?
5. How many toilets are provided?
    a. One for how many children?
    b. What kind? (Outdoor privy, indoor flush closet.)
    c. In what condition?

6. What is the average number of children in a class room?
   a. Is there any evidence of overcrowding?
   b. Is a desk provided for every child?
7. What system of ventilation is used? (Open windows or artificial system.)
   a. Are windows opened wide during school hours?
      (1) How often?
      (2) For how long?
      (3) During recess?
   b. Are windows opened wide before school hours?
      (1) For how long?
8. Is temperature regulated well?
   a. Is there a thermometer in each room?
   b. What temperature is usually maintained during winter?
9. Is light good?
10. Are desks adjusted to size of child?
11. Are black boards a good clear black?
   a. Are they washed daily?
   b. Are erasers cleaned daily? How?

V. Special Classes. (The teachers can give this information.)

1. Are your tuberculous, malnourished or anaemic children placed in open air classes?
2. Are your backward children placed in special classes?
   (The law requires that a special class be organized when there are 10 or more defectives.)
   a. Is the school equipped to test the mentality of the backward children?
      (1) How many children are behind their grade?
   b. Has the Mental Hygiene Service of the State Department of Education been asked to test backward children?
3. Are there any other special classes? (Sight conservation, cardiac, crippled.)

VI. Hot Lunches.

1. Are hot lunches provided?
   a. Free?
   b. At cost?
2. Are lunches available for all children?
3. Do the children help to prepare the school lunch?
4. Are only undernourished children given lunches?
5. What proportion of children go home for lunch?
6. What proportion of children bring their lunches?
   a. Is a hot drink or dish provided for these children?

VII. Use and Supervision of Play Time.

1. Is there a playground connected with the school?
   a. Is it well equipped? Large enough for baseball?
   b. Is it much used?
   c. Are games taught?
      (1) By whom?
      (2) Are school entertainments encouraged?
   a. Dances?
   b. Plays?

c. Clubs?
   (1) Boy scouts?
   (2) Girl scouts?
   (3) Camp fire girls?
   (4) Any others?
d. Who supervises the entertainments?

VIII. What in Your Opinion Are the Greatest Needs in This School?

a. Do these needs apply to other schools in this district?

In making up the tables showing the facts brought to light by this questionnaire it was necessary to adopt certain definite standards. To say that a careful medical examination is made may mean little or much; it all depends upon the standard used. So the following explanation of our method of evaluating the efficiency of an individual school is quite essential. In no instance has a failure to answer a question been interpreted as meaning a lack of the facility inquired about, although it often seemed probable that this was the case. Our figures represent actually positive or negative answers, not failures to answer, and for this reason we believe that they represent conditions as being really better than they are. Often we were not able to classify schools in certain respects because our data were insufficient. In particular was this so in regard to the medical inspection. In classifying a medical examination as satisfactory, we required that an average of 10 minutes should be given to each child in rural sections, and 6 minutes to each child in large city schools where the assistance of nurses and the development of a regular routine is possible. We required that the heart and lungs should be examined with a stethescope, that eye and ear tests should be made (not necessarily by the physician) and that records should be kept. Many of our questionnaires came back with an indefinite answer to the time requirement such as "sufficient" or "very little." We have included none of these in our tables.

We classed a school as showing very little interest in health problems if there were neither health clubs nor exhibits, if the children were not weighed more often than once a year, and if no method was adopted to determine whether or not the children were forming health habits. If any one of these points was positive we gave the school the benefit of the doubt and did not class it as showing very little interest in health problems.

In determining whether to class a building as excellent, fair or poor in respect to its sanitary conditions, we considered the following points: cleanliness, water supply, individual drinking cups or fountains, lavatory facilities, individual towels, number and condition of toilets, overcrowding, ventilation, light, type of desk and condition of blackboards. It was impossible to make our standards absolute in this class. In the first place, we had almost as many investigators as there were schools investigated, and while we made our questions as specific as possible, we had to accept their judgment as to whether a toilet, for instance, was in satisfactory condition or not. We have given some of the specific findings in Table II. The figures in Table I on the subject of buildings represent our estimate formed after a consideration of these and other details. Many factors had to be considered in making these judgments. For instance, while we consider outdoor toilets of the soil-polluting type undesirable, we have not classed rural schools possessing such toilets as poor in regard to their sanitary conditions unless these toilets were neglected. Similarly, the necessity of carrying water from a neighbor's well is an undesirable feature in general, but with a school of five or six children and the distance not great, it cannot fairly be considered an unsanitary condition. With a school of 20 children and the nearest well half a mile away, it may with perfect justice be considered an unsanitary condition. Borderline cases have to be estimated in connection with the total of the rest of the sanitary findings. We do not feel that our judgments are at all severe, and have consistently given the school the benefit of the doubt.

The other items require no special explanation with the exception of the one entitled "Needing better playgrounds or equipment." No schools with less than 15 pupils were included in this class, for we felt that it would be more desirable for most of them to consolidate with adjacent districts, rather than to go to the expense of properly equipping themselves.

CONDITION OF BUILDINGS

1. City and Village Schools

The rapid growth of many of our cities has brought about a situation that is in urgent need of solution. It has resulted not only in crowding buildings beyond their maximum capacity but

in putting children on part time schedules, and placing them in undesirable annexes. The boards of education have in many cases been trying for years to secure the necessary funds for proper development, but without success. In some instances delay has been justified because of the high cost of building during and following the war, but it must also be remembered that the Boards of Estimate and Apportionment, who must give their sanction, have many requests put before them and not infrequently consider other city needs as more urgent than the education of the children.

Moreover, many school buildings which were well constructed in the first place have been improperly cared for and unsanitary conditions have developed because of carelessness or failure to make necessary repairs. The artificial systems of ventilation seem particularly vulnerable. Whether they are too complex for the intelligence of the average janitor or inherently faulty, we have not the data to determine but we found that they were frequently out of order. The toilets in modern well built schools are also sometimes improperly cared for and permitted to get out of order but they are usually sufficient in number and in fair or good condition. It is the situation in regard to overcrowding which is most serious in the larger cities. Annex after annex has been rented, many of them very unsuitable, and classes are held in basements, cloak rooms, under insufficient artificial light, and with poor ventilation.

In Buffalo about 10,000 children of elementary school age are being taught in attic rooms, cellars, cloak rooms, rented quarters and annexes. Many of these are lighted by gas. Nineteen large schools had no assembly room and eleven playgrounds are needed. The Board of Education estimates that it will take twelve new schools to care for the overcrowding. Many of the old buildings also need repairs and several were found in a very unsanitary condition.

In Rochester a large number of schools reported overcrowding, although the school equipment itself is usually good. Practically all schools provide individual towels in their lavatories and modern drinking fountains, and reported that the toilets were in good condition. The schools do not all have adjustable desks. One reported that the desks were old and that blocks were used for resting the feet of small children. Several have no assembly halls

and nine playgrounds are needed. In one school with an attendance of over 600 the children have to stand in the street before the doors are opened, since there is no yard. A building program is planned for the next three years at an estimated cost of $10,000,000. If this policy is carried out the city will be brought up in its school needs to the point where the war halted development. At the present time the same evils of overcrowding found in so many of our large cities are present, with half-time sessions, lessons studied and classes held in corridors and temporary annexes.

To enumerate the needs in each city is unnecessary here. In general they are very much the same and result from a period of failure to expand because of the high cost of labor and materials incident to the war. The urgent need is the popular support of the building programs presented by the Boards of Education.

The following quotations from some of our large city questionnaires give a picture of the sort of conditions found. These were in answer to the last question "What in your opinion are the greatest needs in this school?"

1140 children. "The school is made up of 7 buildings scattered over 4 square miles. There are 2 fairly good buildings. The rest are makeshift annex buildings in stores and churches. A new building is planned here which will provide everything, and that seems very remote."

"A school building. All children housed in 5 different frame annexes, some of them exceedingly unsatisfactory."

665 children. "Has drinking fountains only in boys' basement. The building is lighted by gas. There are no individual cups or towels, and no playground."

"A lunch room for children, a rest room for teachers, an addition to building that will ease present overcrowded condition. Give us a gymnasium and assembly room. An elementary school to care for about 400 children who are housed in church and an unsanitary portable annex."

936 children. "Assembly room, *Paint!* class rooms, gymnasium, playground, *screens!* Garbage and paper and flies. City dumping ground nuisance. 1000 gulls feed here."

Annex. "An old building heated with drum stoves, poorly lighted. Children's wraps hang in storm sheds, freeze when wet. Many people send children to private schools because of poor condition of annex."

"Additional room to prevent the use of rented annexes and old school building that should have been abandoned years ago. Two hundred children now on half time should have full time. Teachers of foreign children should have smaller classes and more time for individual work."

572 children. "No entertainments because no grounds and no assembly room. Needs room enough to teach the children of the district. Greatest need is cleanliness."

1000 children. "A decent assembly hall. Electricity for lighting (one-half the building is lighted by gas). Some provision made for cleaning the windows—this is not janitor's work, I am told. Some windows are never cleaned, evidently."

374 pupils. "A shower bath for the boys and girls. An electric cleaner and attachment. 10 dozen home made handkerchiefs (a great need) about 6" square. School yard put in condition for proper play space, also to eliminate mud and dirt in classrooms."

660 pupils. "An auditorium, more playground, playground equipment; a gymnasium. A special teacher for backward children."

"Everywhere I have investigated I have found janitors and children sweeping and raising clouds of dust."

As a rule the village schools do not suffer from overcrowding as is the case in so many city schools and many of those classed as excellent were found in this group, especially in suburban regions. In most of these schools sanitary conditions are good and playgrounds are provided with a certain amount of equipment. The problems in urgent need of solution are not found in this group.

2. Rural Schools.

There are 10,236 rural schools in this state, and 8,600 of these consist of one room buildings only. These are usually simple frame structures with windows on both sides, which are heated by a stove, often unjacketed, which produces a very uneven temperature. It has been estimated that 54 per cent. of these schools are 50 years old or more, and that 13 per cent. have been in existence for 75 years. Some date back to 1812.

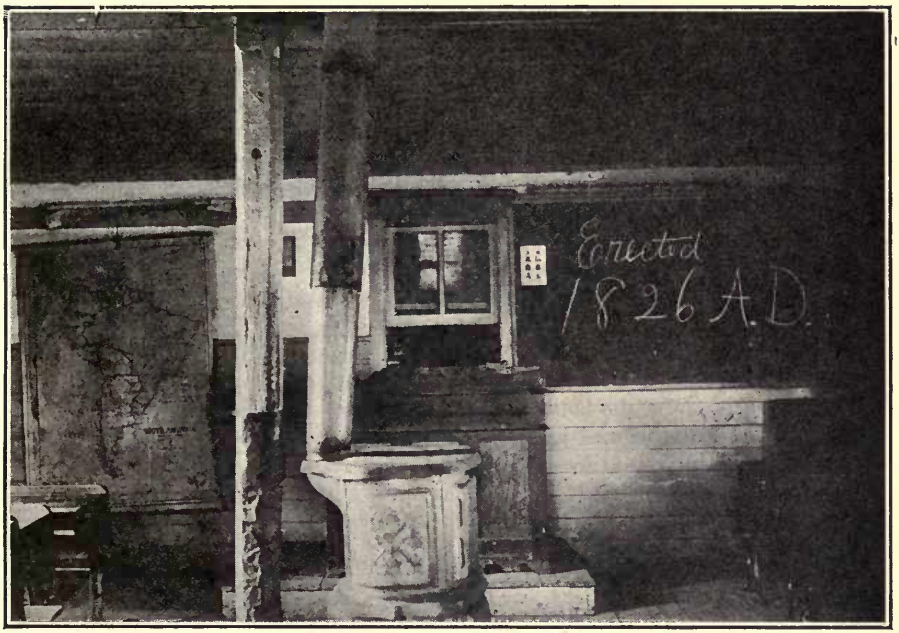
The latest figures on attendance available from the Department of Education are as follows:

15	schools	had	an	average	attendance	of	1	pupil
52	"	"	"	"	"	"	2	pupils
167	"	"	"	"	"	"	3	"
259	"	"	"	"	"	"	4	"
392	"	"	"	"	"	"	5	"

This makes a total of 885 rural schools having an average of 5 or less pupils.

430	had	an	average	attendance	of	6	pupils
556	"	"	"	"	"	7	"
535	"	"	"	"	"	8	"
612	"	"	"	"	"	9	"

This makes a total of 3,015 schools which had an average attendance of less than 10 pupils. This is 42 per cent. of all rural schools.



(This photograph was supplied through the courtesy of the State Department of Education)

1. One of our rural schools.

The reason for such a condition is to be found in the fact that the school district is an area 2 miles square, and the resistance of the community towards putting improvements into schools which serve so few children is easy to understand. It is also obvious that such schools do not as a rule attract efficient, well trained teachers. Finney goes as far as to say that the little one room school is "a disgrace to any progressive farm community." We feel that there are still communities in this state which must continue to use such buildings, but they certainly do not number anywhere near 8,000; modern road building and the motor bus have made the old system no longer necessary. As a rule there is very little community interest in these schools. The trustees are

elected chiefly for their ability to keep the taxes low, and urgently needed repairs and equipment are put off from year to year. The teachers rapidly become discouraged because of lack of materials to work with, and almost every year it becomes necessary to secure a new one.

The following quotations from our questionnaires illustrate rather vividly the needs in many of these schools:

"We need a new roof, every time it rains we have to move around to get out of the rain. The class room was not cleaned at all this year. There is no thermometer and the heat is not well regulated. It was too warm in front and too cold in the back of the room."

"School house cleaned at least once a year thoroughly; necessary equipment such as broom and dustpan. Suitable seats installed; cleaner toilets; better floors and have them oiled."

"Someone to sweep the floor at least once a week; a drinking fountain; a receptacle for erasers, which are allowed to remain on the floors or on the window sill or on the teacher's desk. The toilets are in poor condition."

"A new building. Our present building is nothing less than a disgrace to the community. Also better physical examination."

"Inside of the building made over. This includes new blackboards, good walls painted a light color, new desks. Girls' and boys' toilets separated with at least a partition. Ashes and coal bin removed from front door."

"New blackboards; windows that can be opened; a stove which can be regulated."

"We need a new floor and desks; if floor could be oiled it would help much. We need playground helps, also inside toilets, new blackboards and new window curtains."

"2 or 3 in one seat; water is carried; toilets are poor; temperature is not regulated; desks are not adjusted; light is poor; blackboards are poor; school has been condemned for years."

"We need a water fountain, new desks, a new floor and a lock on the school house."

"Some school buildings are nothing but barns, never improved, but still children spend better part of day in them."

"New floor, new doors, better method of lighting the school room, maps."

"Stove badly needed, no means of ventilation, no playground; school should be kept cleaner."

"Something done to settle dust. The floor is such that by walking over it dust is raised. A new flag is also needed."

"School cleaned more frequently and floor oiled."

"Better floor which could be oiled and would be of some use."

"Key lost from one door (locked). Another door knob broken, leaving only two exits free in case of fire."

"A drinking fountain, a clock, a map of the United States, a library case, some readers for children from first to fourth grade."

"In my opinion the greatest need of the school is an oiled floor. As it is much dust is flying through the air all the time."

"Additions built on. There are 33 children with 15 double seats. Very small space for more seats. A flag."

"Our greatest need is a new school house."

"There should be a thermometer in the room. The room is equipped with double seats, some of which are broken. Single seats would be a great improvement."

116 pupils. "A new building with class rooms enough so that it will not be necessary for a teacher in the High School to go outside the building to hold classes in the study hall where there are many distractions open to all concerned."

"Whole town needs better school buildings."

"Black boards are small, poor black, very poorly placed; toilets are cold and unsanitary; desks and seats do not fit the children. Greatest need is for new blackboards and some better system of ventilation. School is heated by wood stove."

"Method of cleaning school room to avoid dust, either oiling of floor and use of oiled mop, or weekly scrubbing with soap and water *not by teacher*."

"This school is in bad repair and is therefore very hard to keep clean. It also needs books more than almost any school I have visited."

"A door knob, a latch, — an American flag."

"Drinking jar, oiled floor, windows on a pulley to open from top and bottom and stay where they are placed; outside painted; new individual desks."

"The seats are old and rickety."

"I taught in this school 27 years ago; it is, with a few minor changes, practically unchanged. To get to the school room you pass through outer room containing the fuel, broom, dustpan, etc."

"This school has the usual entry through the wood shed."

"A forlorn appearance inside and out. Much needed improvements."

"A chimney that doesn't smoke, a stove that warms the room, clean walls, desks, floor, maps, dictionary and other necessities for proper work." (23 children in this room).

"School house in poor repair outside and in; large hole in front of building, near roof, large enough to admit rain and snow, and plenty of cold in winter."

"This building was very poor, built low to ground near creek and leaky roof. (Trustee had mender, the worst). The teacher was very young and lacked initiative in knowing what to ask for. The playground was absolutely bare and no games, not even balls provided."

It is encouraging occasionally to find the following: "The building has been condemned by the State Department of Education," but they keep on using it, however.

"One school in this second district is closed because there were only 2 pupils. I understand these two are not in school at all, as the district is remote and children too young to send elsewhere."

"Screens. In fall the place is full of flies."

"The ramshackle stove should be junked."

Sanitary Survey. It is one of the regulations that a sanitary survey should be made of each school every year, and 61 per cent. reported that this had been done. There is no uniform system in complying with this requirement, and it is frequently omitted or made by the teacher alone. In 22 per cent. of the schools that we investigated no survey had been made and 17 per cent. left the question unanswered. Some district superintendents make these surveys, but not all district superintendents visit their schools each year. The sanitary survey is occasionally made by the school physician, and at other times by a trustee.

Cleaning. The usual rural school is cleaned once a year, sometimes not as often as that, and during the rest of the time it is swept or mopped by the teacher or pupils. Cleaning was stated to be unsatisfactory in 579 schools.

One of the most frequently mentioned needs in small schools was oil for the floors, and teachers told our investigators that it was very difficult to get the trustees to supply this; that they had paid no attention to numerous requests. The dust and powdered chalk in these schools is simply stirred up by dry sweeping in many cases, and a large percentage settles again in the room. Occasionally the school equipment does not even include a broom.

Lighting. In most of the one-room school houses windows are placed in both side walls in such a way that cross lights are produced. It is well recognized that for any prolonged work which requires writing the light should come from the left side only, otherwise the shadow of the hand interferes to a considerable extent with the clear vision of the paper, and the constant movement of this shadow is trying for the eyes. Not only does the light often come from the wrong direction but in many cases it is actually insufficient, sometimes because of too many trees around the building, sometimes because the windows are too small and the interior walls of a dark color and occasionally because of simple neglect indicated by the remark "windows never washed apparently". Eleven per cent. of the schools that were investigated complained of poor light. This by no means includes all those in which there are cross lights or in which the light comes from the wrong direction.

Blackboards. These are another source of serious eye strain. About half of them are wooden and the black paint wears off in a short time, leaving a surface that is hard to write on and hard to read from. 932 schools (22 per cent.) were reported as having blackboards in this sort of condition. They are seldom washed, because this helps to remove the surface. Sometimes there are no erasers, sometimes the chalk rail is missing.

Desks. The old double desk and seat is still usually found in rural schools. It does not always mean that two children are actually using these desks because the number of children in many of the schools is so small that a large number of desks are unoccupied. 1179 schools (28 per cent.) were unable to give their children desks of the proper size. This does not mean that all of the other schools had modern adjustable desks, for in many cases it simply meant that there were so many more desks than children that all could be fairly well fitted. 546 schools (13 per cent.) reported having two children in one seat, and a few have had to put three in one seat. The latter sort of overcrowding is very rare in country schools however. The opposite condition is much more common and schools built to accommodate 20 or 30 children have only 10 or 12 actually in attendance.

Water. The water supply varies greatly, and comes from all sorts of sources. Many schools have no water on their own grounds, and the children have to carry it in pails from a neighbor's well, or a nearby spring or brook. 888 schools (23 per cent.) reported having to carry their water, and it is not always from a nearby source. In most cases the distance was not stated, but one school with 22 pupils had to go a quarter of a mile for water, and another with 11 pupils had to carry it half a mile. Others reported the difficulty in terms of time instead of distance as "it takes 20 minutes to go for our water". A few schools reported having no water at all. Where there is a well on the school grounds it is frequently the open type, and its purity has very rarely been tested. The state provides facilities for the free testing of water but they are seldom taken advantage of. Water is kept in the school rooms in an open pail with simply a dipper or single cup for drinking purposes in altogether too many schools. 474 (11 per cent. of all schools visited, including both city, union free and rural schools) had neither drinking fountains of any sort nor individual cups. The real percentage of unsanitary drinking arrangements is un-

doubtedly higher because in many of the schools which reported having individual drinking cups the children simply keep their own cups in their desks and dip them into the common pail. Our questionnaire unfortunately does not distinguish these from the others, and so they are all classed with the satisfactory group. Some of the needs in regard to water were expressed as follows:

"A sanitary water cooler, cups, towels, pure water — at least something besides creek or surface water."

"Spring should be improved."

"Neighbor's well should be tested."

38 children. "Water used from open spring."

"Children bring bottles from home."

"The water has to be carried a long way. If running water could be installed the children would keep cleaner, the building would be cleaned better and life more livable."

"Sink for washing hands as there is plenty of water near by for that purpose. Children go to a near by brook often when weather is warm."

"There should be a jar with faucet for water instead of open jar, and a closet or sanitary place for keeping drinking cups."

"A definite source of good drinking water is one of the most needed things in District School No. 6."

22 pupils. "Good water supply needed — sometimes in winter go without water."

46 pupils. Water supply is "a brook, polluted, and water carried one quarter of a mile for drinking purposes."

159 pupils. "No water supply."

48 pupils. "Water obtained from neighbor's well when in working order."

82 pupils. "An investigation or water supply — some question of purity of it. Pupils annoy neighbors to get drinking water."

One high school with 300 pupils reported having no lavatory facilities except one bowl under the drinking fountain. No sanitary survey had been made, the toilets were in bad condition, the ventilation poor. There was no auditorium and no playground equipment.

One school with 190 children had no water supply at all, either for drinking or lavatory use. Its two outdoor toilets were in poor condition, and no sanitary survey had been made.

Lavatory arrangements in the typical one-room school consist of a basin with a common towel or none at all. Very, very rarely are paper towels supplied. Occasionally some of the children bring towels from home and keep them in their desks for varying

lengths of time. Sometimes there is "a towel for each family." In the union free districts it is quite common to find paper towels provided and regular lavatories with running water. Among the rural schools visited 26 per cent. reported having no lavatory facilities and 47 per cent. of all schools had no individual towels.

Toilets. Our investigation shows that 55 per cent. of the rural schools investigated still have outdoor privies. It is frequently argued that the children going to such schools come from homes in which any other form of toilet is unknown. Such a point of view fails to comprehend the real function of the school in relation to the community. It is indicated in the following incident quoted from E. E. Davis in *The Twentieth Century Rural School*: "A fly proof sanitary toilet with a cement floor was observed at a country home. It was an exact copy of the one at school. The proprietor of the home said 'Yes, that boy of mine thought the one at school was a good thing. Then he and I built this one.' *Now there are seven others just like it in use at the country homes in that district.*"

The State Department of Education passed a regulation a number of years ago requiring that all outdoor privies should be replaced by some type of sanitary indoor toilet. This requirement was to be fulfilled in 1918, but it roused so much local feeling that it was not pressed. Here is an example of the need of educating public opinion to support progressive measures. It is the opposite of the autocratic system and the one upon which we must necessarily depend in this country. Although the process is slower and more expensive it results in the end in real support of the measure instead of antagonism. The law in this country against spitting in public buildings and street cars undoubtedly owes much of its enforcement to the campaign, carried on largely by the Tuberculosis Societies, which has had as its object the education of the public in regard to the danger of spreading disease. The general public supports this law because it understands the reason for it. A similar campaign carried on in rural sections which would present the unhygienic features of the outdoor privy is an essential complement to any regulation providing for its removal.

Separate toilets are always provided for boys and girls but they are sometimes under the same roof with a simple partition between. Walls are scratched up with obscene words and a gen-

eral appearance of neglect is common. 587 toilets (13 per cent.) were described on the questionnaires as being in poor condition. Flies breed in these toilets and swarm to the school houses which are unscreened. Conditions are very much better in the schools which have installed chemical toilets. Only occasionally was one of these reported in poor condition. Water closets were usually reported as in fair or good condition except in the very large schools where an insufficient number had been installed. Some of the needs in regard to toilets are quoted below:

School with 200 pupils. "Drainage connected with sewer — it now flows into the creek."

96 pupils. "The greatest needs of this school are indoor toilets. gymnasium and assembly room."

"Two separate toilets — there is one with partition."

"Toilet paper."

"Odor from toilet unbearable" (school of 18 pupils).

"Some periodic cleaning and disinfecting of outdoor privies — usually done but once a year."

"The outdoor toilets are within 10 feet of the school."

"Toilets frozen for four months and could not be used." (30 pupils in the school).

"A partition between boys' and girls' toilets."

"The outdoor privy is the worst feature due to abuse by young toughs in the neighborhood, and also to neighbors who use it as a dump. Locks have been broken in the past. The teacher trains the children not to use it unless absolutely necessary."

"The outdoor toilets have received no attention in more than a year, and the interior walls of both outbuildings were decorated with obscene carvings."

312 children. "Outdoor toilets in poor condition.

"Suitable toilets, for they face one another and are not separated by a fence."

"The toilets are even harmful to good health."

"Some improvements in toilets are badly needed."

"Toilets should be fixed so the flush will work."

"Chemicals fail to work properly. Odor offensive in the summer."

114 pupils. "Not enough toilets. Need of disinfectant. The seats in girls' toilets all broken."

250 children. "Outdoor toilets in poor condition."

Heating and Ventilation. These subjects have to be considered together. With the simple unjacketed stove placed in the center or near the front of the school room, it is of course impossible to maintain anything like an even temperature, and such schools are frequently exceedingly uncomfortable in winter. The children

near the stove are too hot and those in the outskirts of the room are too cold. 800 schools (19 per cent.) reported that they were unable to regulate the temperature with any degree of satisfaction. It is impossible to give any definite figure in regard to the usual temperature maintained in these rooms during winter because 36 per cent. of them have no thermometers, and even with a thermometer it will register quite different figures in different parts of the room. Sometimes it is kept on the teacher's desk, sometimes hung on a wall, sometimes suspended from the ceiling. One school reported a temperature varying from 40 to 90 degrees. One teacher said: "We keep warm after two hours in the morning." Undoubtedly this is not an isolated instance. A picture of conditions in these schools is given by the following: "We are thankful if there is enough warmth to begin school at nine. With windows opened it would be impossible. I believe in fresh air .....but ..... come to .....Hill. School has ventilation through cracks. Windows would freeze us." [We keep it] "hot as possible." Many times on the questionnaire the need of new stoves was simply mentioned among other needs and a number of new chimneys were asked for.

Although these schools are so cold early in the morning they frequently become very hot before the end of the day, and in spite of the air coming through door and window frames and the side walls, there is far from sufficient ventilation. To quote from a few questionnaires:

"Heating system poor — in severe weather school closed."

"Temperature cannot be raised above 40 degrees on some days."

"Windows will not open from the top."

"Windows frozen down in winter."

"Pulleys for windows. Will not stay open where put."

45 children. "Impossible to use thermometer in cold weather. Those near stove too hot — those back too cold."

"Smoke poured out between loosened bricks in the chimney perilously near the shingled roof."

"Have to climb on desks to open windows."

"Windows cannot be lowered from top."

"This is a district school away out in the country and of course there are all kinds of things needed, but it seems to me the most important one of all is better ventilation. The windows are nailed for winter, and if one removes the nails the windows fall out."

"Windows adjusted so they can open."

37 children. "Temperature varies from 40 to 90 degrees in winter."

"Extension of chimney to keep stove from smoking."

Educational Equipment.—No questions were asked in regard to maps or books, but the need of this sort of equipment was mentioned so often as a note at the bottom of our questionnaire that the need cannot be dismissed without a word. One teacher in asking for books, papers and magazines wrote: "These children are simply starved for something to read. They read the most trashy things. Oh, for some good reading matter!" Others stated that although there were books in the school library, they were beyond the understanding of most of the pupils. From one county alone we received seven of these spontaneous remarks in regard to a lack not of library books but of text books for children who could not, or whose parents would not provide them. One teacher told our investigator that the children were often backward merely through a lack of books, adding, "I think text books should be provided for every child." The futility of maintaining a school and requiring attendance and then failing to provide text books would indeed seem obvious. The need of a school library may not seem as obvious, but it is almost as great. Reading matter for children in rural homes is exceedingly meager, and the usual school library is soon exhausted. At the time in life when the first interest in reading appears the material is not at hand, the opportunity is lost and the habit is not formed. It is not our intention to go further into the question of educational equipment, but the appeals were so frequent and came so often from schools which showed at the same time poor sanitary conditions that the problem could not be passed over without mention. It makes all the more urgent the need of some form of reorganization in our rural school district system which will tend to abolish these very small schools which are so often not only unsanitary but poorly equipped from the educational standpoint, expensive and inefficient.

MEDICAL INSPECTION

Requirements of the Law. The medical inspection law for New York State was passed in 1913.* It provides for an annual examination of all school children, and for the remedial care of those suffering from disease or physical defect. The State Department of Education is intrusted with the responsibility of seeing that its provisions are fulfilled, and the Commissioner may withhold pub-

*See Appendix p. 134.

lic money from a district which wilfully refuses or neglects to comply with the rules and regulations laid down under the law.

Cities of the first-class, Buffalo, New York and Rochester, are not affected by this law, and the health supervision of their schools is a function of their respective boards of health.

The law requires that every school child should have a separate and careful examination including eye and ear tests every year, and provides for the appointment of school physicians to make these examinations in all cases where children do not bring health certificates signed by some other licensed physician. It is also the duty of the medical inspector to provide relief and treatment for those children whose parents or guardians are unable or unwilling to do so.

The law provides that nurses may be employed in the same manner as the physicians or jointly employed by several districts, and the State Department of Education recommends that there should not be more than 2000 children under the care of one nurse. The medical inspectors are also empowered, but not required, to examine teachers, janitors and school buildings, when in their opinion this is necessary for the protection of the children.

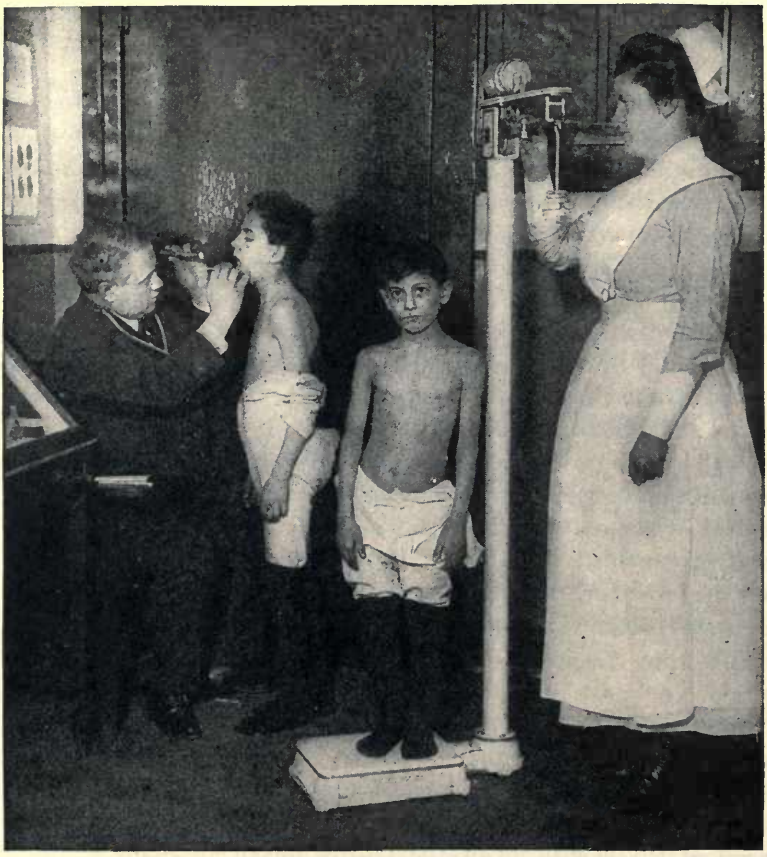
Medical Inspectors. The school medical inspectors are appointed by the boards of education in cities and union free school districts, and by the trustees of common school districts, and the expense is met through the funds raised by the regular school tax. The work is usually done on a salary basis in the larger communities, and at a definite sum per child in the rural sections. The most frequent amount given is fifty cents for each examination. Some medical inspectors are paid a dollar for each child, and some only twenty-five cents. As a general rule the community gets about what it pays for, although occasional physicians make careful examinations for very little recompense.

Full time inspectors are employed in Albany, Amsterdam, Buffalo, Lockport, Poughkeepsie and Rochester.

In many cases the regular health officer is appointed school physician also, and whether or not he holds this position, he has a certain responsibility in regard to the schools in connection with the control of communicable diseases, his certificate or approval of the certificate of the family physician being required before a child can be readmitted after an absence due to one of these diseases. This provision is complied with in the majority

of schools. All schools are supposed to contain charts entitled "Rules for Isolation and Exclusion from Schools," but these were frequently missing. On the whole, there is better provision for the control of communicable diseases than there is for discovery and correction of physical defects which are no less serious.

Physical Examinations. All but 82 schools out of the 4,244 investigated complied with the law in providing some sort of physical examination, but only 38 per cent. of these were carefully made.* 39 per cent. consisted of a very cursory inspection and in 16 per cent. no eye and ear tests were made. It is a quite common



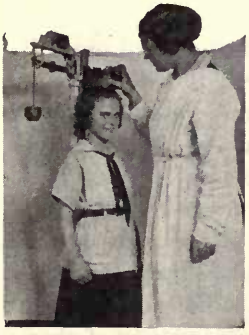
(Courtesy of the Child Health Organization)

2. Now is the time to discover and remedy defects—Building for the future.

*In 7 per cent. the clothes were removed to the waist.

finding that physical examinations are more carefully made in the districts which employ nurses to attend to the follow up work and it is easy to understand why this should be so. The physician feels that his work is worth while because it will produce results. It cannot fail to be discouraging to examine a group of children each year and send recommendations to their parents, and find every succeeding year that no attention has been paid to them.

Nurses. Practically all city schools have the services of a nurse and many are visited regularly by nurses at least every month and often every week, but it is very exceptional for rural schools to have this service. Of the villages which are union free districts 82 per cent. have one or more nurses. 69 per cent. of all the schools investigated (including both urban and rural schools) were never visited by a nurse, 12 per cent. received an occasional visit (usually once a year) and 15 per cent. were visited regularly as often as once a month. In Rockland County 53 per cent. of the schools were visited regularly. This was the highest average found, but in Schoharie County there is not a single school nurse. A number of counties employ one nurse who includes visiting the schools among her other duties. She is never able to reach all of the schools in a given year, and seldom visits an individual school more than once.



(Courtesy of the Child Health Organization)

3 and 4. The monthly weighing of all children checks up in a practical way the results of the health instruction.

Dental Service. Dental attention is particularly difficult to obtain because the majority of parents do not realize the importance of it and pay no attention to the recommendations made. Only with dental clinics easily accessible and school nurses to get

directly in touch with the parents can this need be filled. The appalling condition of the teeth in our adult population was fully realized for the first time when our draft army was examined. In four counties the Red Cross maintains dental clinics. These are Dutchess, Fulton, Nassau and Westchester. The clinic in Nassau County is mobile and reaches the entire county. It has now become practically self-supporting. The clinic in Dutchess County is maintained in co-operation with the County Health Association. A number of cities and villages have adopted the method of securing volunteer services of dentists who are willing to give some time for the free treatment of indigent children, and clinics maintained in this way are accomplishing a good deal but are very seldom sufficient for the needs. Out of the 58 cities and 450 incorporated villages in the State, 50 have provided some form of dental service. That a beginning is being made and also the labor entailed, is indicated by an occasional report like the following from one of our county chairmen:

> "You will be interested to hear that last Saturday there was a very successful dental clinic held by three of the remote schools in..... district. This gives me a great deal of satisfaction, for it has taken a year of preparatory work to get the thing under way."

This county contains nearly 200 schools, so the difficulty of getting them all covered by the activities of a private organization can well be imagined.

Rural Problems. When the present situation in regard to medical work in rural sections is fully appreciated, the difficulty in securing careful medical inspection for so many small scattered schools assumes very large proportions. There are 250 townships in this state which have no physician. The shortage in rural communities is increasing every year, and the younger men are not taking up country practice. The average age of the men now in rural practice is considerably over 50 years, and as they die or retire many of their places are not filled. And it is not only the fact of the scarcity of physicians which is important, for many of these men are "old timers" and both careless and ignorant, judged by our modern standards. They have not learned to use the more recently invented instruments of precision which make accurate diagnosis so much more probable and they have not adopted modern standards of hygiene. Many of them use a single spoon or tongue depressor for all of the children, and some of the com-

plaints in regard to vaccination are well justified because of the physician's ignorance or carelessness in regard to the proper technique and the need of cleanliness.

This is not intended as a wholesale indictment of rural physicians. Many are very able men and they endure hardships and make sacrifices that few city physicians would care to face. They deserve all credit for the splendid work they do but the fact remains that the school children are not getting the attention that they need. Possibly the best men are not, as a rule willing to undertake the school work. It has not been presented to them as a fine piece of community service. Whatever the reason may be the results are definite and it is high time to arouse a questioning attitude in each school district in regard to the sort of service it is getting.

Some of the comments on the questionnaires in regard to medical inspection were as follows:

"No follow up work.....need nurse, medical inspector of very little value.....money given to him is wasted."

"No children receive treatment unless the parents follow up the medical examination which is very seldom done because the examinations are a farce."

"No child received medical attention who needed it."

"No treatment; distance too great; nurse needed."

"Medical inspection more thorough, as it is sometimes mere form." (19 children examined in 15 minutes).

"Head inspection for lice, and the remedy."

"There seems to be an outbreak of some disease, and if school could be visited by nurse or doctor it would reduce the number of cases."

"The doctors are not to blame for the conditions that appear to exist. The first years they spent much time, but the parents did not do their part. Unless there is a good follow up system the doctors can do little but advise, which does not accomplish much."

From one school where the Parent-Teacher Association is taking responsibility for the follow up work:

"I find the doctors are only too willing to give their time free and also take a great interest when they see their work is resulting in some definite good."

"One girl with tubercular hip who should have been attending this school and would have been found by any nurse or medical inspector, was left without attention for two years. A follow up and inspection system is certainly necessary there."

"There is absolutely no follow up work of any kind. The doctor examines the children once a year and everything else is left to the

teacher, who has no cooperation from the community or parents. In many cases she does not even know the requirements of the state law."

"The doctor asked the children if they could see and hear well. As would be expected, all said 'yes'."

"Doctor lifts them when he comes, and guesses weight."

"Medical inspection for 1920-1921 has not been made, although repeatedly requested."

"Not any children received treatment."

One district superintendent wrote:

"The fact is the conditions are too deplorable to report. . . . . What few medical inspectors are employed do their work at a school in a few minutes, collect their fees and pass on and that ends the whole health business for the children until the next year, when the same farce is repeated, while many school districts do not even employ this farce medical inspection. Any attempt to have a nurse or a physical training teacher is fought by the rural population most bitterly, as are any attempts at improving the physical surroundings of the children, such as drinking fountains, heating and ventilating system, decent toilets, oiling floors to prevent dust, slate blackboards and the like. As soon as I am convinced that the women of your league really have the welfare of the children of the rural schools at heart enough to set out to bring about the employment of good medical examiners with follow up work with school nurses and the other needed reforms, you may count on me to the limit."

Difficulty in getting careful medical inspection and follow up work may occasionally have its source in the attitude of a school superintendent such as the following one. It is interesting to contrast his attitude with that of the man quoted above.

"The superintendent and principal of this school is a Christian Scientist and is a very old gentleman. He does not believe in being particular about sanitary conditions, that is cleanliness, thinks the 'germ craze' as he calls it, is all nonsense, thinks all this physical instruction and gymnastics is unnecessary. Never heard of Disease Census Card or Susceptibility Chart, although issued by the Educational Department. Says teachers open windows too often. The general opinion of this school is that health conditions are very lax. The building is old. The standing of the school is very poor. Children in this district are being sent by their parents to the other village district on account of being better educational advantages and better medical inspection, thus tending to overcrowd the better school.

"Dental attention. Some provision for poor children to get their teeth cared for at the important time of their life for proper development of teeth."

"I think the school would profit by a school nurse. The medical inspection would have its follow-up work. The parents could be instructed on feeding the children. The teacher can do this but not

so satisfactorily. Rural children are fed outrageously."

"Action to care for one pupil 15 years old who has terrific fits, and exclude him from school."

"School nurse to encourage better living conditions at home. Most mothers are foreigners in this district and need instructions in home-making and sanitation."

"Careful follow-up work after medical inspection, regular visits by school nurse. Some follow-up work could be carried out if financial aid was given."

"Medical inspection in school too hurried. No eye and ear test given.'

"I think a report of the health examiner should be sent to the parents. Only 2 of the 32 children examined were found perfect."

"In my district the teeth of the children need attention. I wish it was in my power to send out a dental ambulance, manned by a dentist and one or two dental hygienists to clean the teeth and where possible make temporary fillings. The second question of importance is the removal of diseased tonsils and adenoids." (Signed by district superintendent.)

"Patients ignore the defects. Several cases of diseased tonsils have been reported for the third time this year. These children are behind in their school studies as a result."

"The school is 12 miles from doctor or dentist."

"More attention to control of communicable diseases. School closed 8 weeks on account of scarlet fever."

Conclusion. It is not our wish to give the impression that nothing is being done in the state or that conditions are entirely bad. Much splendid work is being done in some communities, especially in the larger cities. This work is not described in detail in this report because it has been our wish to indicate what still is to be accomplished rather than to stress what has been done. When we consider that 50 cities and villages have established some form of dental service for school children, and 400 dentists have designated children's service hours, it is evident that a good start has been made. As this work is extended the cities will be cared for, but the situation is quite different in the rural sections and in most villages. There are 250 full time school nurses in the state, most of them in cities and large villages, and 500 other nurses doing some work in the schools, but when we remember that nearly nine-tenths of our schools are rural, it is not surprising that our questionnaires show only 15% visited reguarly. The Chief Medical Inspector of the State estimates that during the last four years 36.6% of the defects discovered in city children were treated as compared with only 22.7% of those in rural children. It must be

borne in mind that these percentages are of defects *discovered*, not of total defects existing and everyone familiar with the problems of medical inspection realizes that a great many more physical defects were not discovered.

HEALTH INSTRUCTION

Practically all schools give some simple health instructions, including the importance of sleeping with open windows, of cleanliness and proper foods. This work is usually left to the initiative of the teachers, and the extent of it consequently depends upon their own interest in the subject. There is no uniformity in the manner of presenting these subjects, but we find such instructions frequently given in connection with the courses in physiology. In schools where visits are made regularly by nurses, the latter often give talks on hygiene. Occasional lectures or talks of this kind are of great value, but much more regular instruction is essential if the children are to actually form health habits.

The frequent visits of a school nurse are a strong incentive to both teacher and pupils to develop interest in this important field, and the monthly weighing of all children with a classroom weight chart serves not only to pick out the undernourished children who need special attention, but to emphasize to all children the importance of keeping up to the standard. It is also a valuable means of checking up the real results of the health instruction and determining whether or not the children are forming good health habits. In only 16% of the schools were the children weighed every month. The Department of Health has estimated that one out of every five children is undernourished, and practically all of this is due not to poverty but simply to the fact that the children do not eat the proper foods and do not get sufficient sleep. It is easier to teach the children the importance of these things than it is to reach the parents and overcome their ignorance or indifference. Lack of co-operation from the parents is the most frequent difficulty complained of by the teachers in regard to this phase of the school work.

A few teachers who are particularly interested in health problems find opportunities to include health instruction for very young children in other subjects such as arithmetic or penmanship. There is a field here that could be widely extended. From the point of view of the penmanship alone it is immaterial what sub-

ject matter is used, and health maxims could be substituted with great advantage for many of the simple sentences now in common use.

The most frequent means now used for arousing the interest of school children in health subjects is the brief talk by the teacher with a morning inspection. A health club or league of some sort is the next step and one in fairly common use. From 69% of the schools such organizations were reported. Health exhibits and poster contests prepared by the children are more frequently found in the cities and larger villages. Only 28% of the schools had exhibits of any sort. Sometimes they were prepared by the children. Sometimes they were in the form of lectures or the "Health Clown" or "Health Fairy" etc., brought in by cooperation with some outside organization.

Although practically all schools reported giving some health instruction 13% had neither health clubs, exhibits, scales, nor any method of checking up to find out whether the children were forming health habits, and we classed these as showing very little interest in health problems.

In a few of the cities where open air classes are held, cots with blankets are provided, and the importance of rest for undernourished children can be both taught and put into practice.

The difficulties in regard to health instruction in rural districts can only be appreciated when the condition of the buildings is fully understood. It is of very little value to try to teach the importance of washing the hands before handling food when the school has no water supply, and gets along during the winter without even carrying any in. A few quotations from the questionnaires may be of interest.

"Teacher bought the scales herself."

"I would like to be able to weigh the pupils regularly, which could be done if there were scales in the school. There are scales in the district, but they are a long way from the school house."

"More time to teach health subjects."

"Parents will not do their part."

"Health charts would help."

"Get parents interested."

"Nurse gives health talk 2 or 3 times a year."

"If we could have class room charts with stars."

"Weighed monthly at station or home and report themselves."

"Weighed 'when convenient.'"

"More health talks."

"A regular talk by doctor or nurse or outsider on health subjects."

The most frequent space on the questionnaire left blank was the one under health instruction: "Ask the teacher what her suggestions are for improvement." Very often there was simply the word "none," and still more often it was a blank. This must surely indicate either a lack of imagination on the part of the teachers or fear of making a complaint. But complaints were so readily made in regard to the condition of the buildings and grounds that it more probably indicates the former. The teachers as well as the children need education in health subjects. Their interests do not yet go out spontaneously and creatively in that field. More background is needed.

PHYSICAL TRAINING

Physical training is required by law in all schools of the state. This law is very indifferently complied with in many places, and in some completely disregarded. In the cities and large villages which have a sufficient number of physical directors some very fine work is being done, but throughout the rural schools this is left to the regular teachers, who receive their instructions from one of the physical directors. Under these conditions we find that the work consists simply of a few exercises given daily during the school hours. Frequently only two minutes a day are spent in this way; occasionally it is omitted completely. It was usually reported that either the windows or the door were opened during the exercises; some were qualified by "in good weather," some by "except in winter," some by "occasionally," one teacher asked "what for?" In one county 22 schools reported having no instruction in physical education.

There are 577 directors of physical education in the state. Rockland and Nassau employ the greatest number in proportion to their total population. Some counties have only one. Putnam, Schuyler and Seneca are in this class, and the physical director in Seneca County holds a temporary license.

For communities which are not large enough to employ both a nurse and a physical director, a solution is provided by the State Department of Education through its policy of giving a temporary license to the school nurse after she has received some special instruction which fits her to act also as physical director. Very much more efficient work can be accomplished in

this way than by leaving it to the individual teachers, some of whom are interested in it and some of whom are not. Of the 577 physical directors 98 hold temporary licenses.

Lack of a gymnasium in a large city school is a serious handicap and one that was reported very frequently, not only from the annexes but from the main school buildings also. No questions were asked in regard to the presence or absence of a gymnasium, so this was another of those needs which like the maps and text books in rural schools, came out quite spontaneously and impressed us particularly because of its frequent repetition on the questionnaires coming from city schools.

The attitude of some teachers in rural schools towards the physical training requirements is indicated by the following:

> "Not more physical instructors who know nothing of country children, walking from two to four miles every day, after working two or three hours. People are needed to make laws for school who know what a country school is."

SPECIAL CLASSES

It has been estimated by the State Department of Health that 5% of the children of school age have now or have had tuberculosis. The cost of maintaining sanataria, hospitals and dispensaries for our tuberculous adults is great and the economic loss to society, because of the inability of many of these individuals to work and support themselves and their families, is also considerable. It is well recognized that tuberculosis attacks primarily children and young adults, and it is also admittedly curable if treated early. Resistance to it should be developed in childhood, and the value of open air treatment for all anaemic, susceptible children has been definitely established, yet it is extremely rare to find open air classes provided in any but the large cities. Of all schools, city and rural, 4.6% stated that open air classes were available. Outside Buffalo and Rochester, 16 cities and one village have open air schools or school rooms, with 1,000 children enrolled. Buffalo has 4 open air classes with 120 children enrolled, and the superintendent reports that 1,500 children need such care. Rochester has two open air classes, one of them located in Iola Sanitarium.

In a recent speech the chief medical inspector of the state said, "Of the thousands of school children who are today suffering with

tubercular infection, comparatively few are being recognized." Meanwhile tuberculosis still causes about one out of every ten deaths in this state.

The number of children who need to be placed in special classes because of backwardness is also very great. Children with very marked mental defects are frequently found in the regular schools, where they remain year after year without progressing, serving as a constant source of trouble for the teachers and exerting a very bad influence over the other children. Not infrequently they are expelled, and nothing more is done for them.

There is another large group of children who are simply backward and not necessarily classed as defective but who need a special form of training along vocational lines. The ordinary school offers very little to these children, and their only wish is to grow old enough to get to work. The teacher labors wearily with these children, and they usually receive a disproportionate amount of her time. They are restless and mischief-making, and their presence definitely handicaps the other children who could progress more rapidly. The law requires that every school having 10 or more such children should establish a special class for them, but this practically does not affect rural schools at all, in the first place because accurate grading is so difficult, second because there is seldom any provision for mental testing, and third because the attendance in the individual school is so small. In order to provide the proper educational advantages to these children and to do justice to the other children, it would be necessary to provide special classes which would serve for a larger unit than the single school district. This need was expressed as follows on one of our questionnaires:

> "At least one backward class should be arranged for three or four school districts together. Better results could be obtained in a consolidated school system, both for pupils and teachers."

From a school of 50 children in one of our most progressive counties came this report:

> "This school is composed almost entirely of Italian children. There is one girl age 12 high grade idiot, and one boy 8 and one girl 8 nearly as bad." (Whatever grade of defect these children would prove to have with accurate mental testing, it is evident that they are out of place in this school).
>
> "Lack of special class and attention to subnormal children."
>
> "One defective boy needs attention."

"Special attention to a small group of backward children.'

"Two real defectives in school." (Tested by physician from State Department of Health).

There are at present 175 special classes for backward children in the state, but these are distributed chiefly among the larger cities, 21 being in Buffalo. Other types of special class work are occasionally found in the larger cities. Rochester provides special classes for the physically crippled, those with defective vision, those with speech defects, the non-English speaking, the truant and incorrigible, those confined to hospital or institution, and the specially gifted. The latter is a very unusual finding and one which promises much and should be developed in every city. Rochester has also a Child Study Department with a staff of psychologists.

Buffalo provides special classes for sight conservation, speech defect, crippled children, wayward boys and truants, and lip reading. It needs many more classes for defective children, but its request for nine additional ones was not allowed last year by the council. It needs also a special department for testing the mentality of such children. It is doing nothing yet for the specially gifted children.

HOT LUNCHES

One out of every five of our school children is undernourished. This is a serious situation which can no longer be left to each individual family for solution. It is not poverty but ignorance and carelessness that serve as the causative factors. In many well-to-do families the children hurry off to school in the morning in the fear of being late without finishing their breakfasts, and for lunch they have only what they carry with them. It is not only among the poor and the alien population of our large cities that improper food is given to children. There is a wide-spread ignorance in regard to the needs of the growing child. Very few women know what constitutes a well balanced diet, and the children are the sufferers. The noonday meal at school serves as a valuable means of teaching food values, and helps to bring such health instruction down to a level of practical application.

A hot, properly cooked meal at noon is almost immediately reflected in the work done by the children. In a recent study

made of the results of feeding undernourished children, 86% were found to show "marked improvement" in their studies and conduct.

In this state it is very much more common to find lunches provided in the high schools than in the elementary schools. These are usually sold at cost. 28 cities and 16 villages provide

(Courtesy of the Child Health Organization)

5. The school lunch. A simple form of health insurance.

milk in some of their schools either for all or for undernourished children and the money for this is often raised through the activity of some interested private organization.

Out of all the schools investigated 68% made no provision for lunches; 2% served something to undernourished children (usually milk, sometimes cocoa, occasionally milk and crackers); 7% provided for a hot dish or drink during the winter months, and 14% reported serving hot lunches. Sometimes in rural schools this merely means that food brought by the children is warmed on the stove. In some cases the teachers supply the materials and pay for them, and occasionally the parents contribute raw materials, either as individuals or as a Parent-Teacher Association or some other local group. In city schools the lunches are usually served at cost, and it is optional with the children or their parents whether or not to take advantage of them.

A great many teachers in rural schools said that they would be glad to serve a school lunch and have the children help to

prepare it, but they had no utensils or stove that could be used for such a purpose.

In a considerable number of the schools that we have credited with serving hot lunches, only the merest beginning has been made and no regular system has been developed. Occasional qualifying remarks after the question has been answered in the affirmative indicate the nature of many of these lunches.

"Children roast potatoes, apples, or heat other things they may bring. Children furnish their own if they have any."

"Pupils sometimes bring soups, etc., and heat on stove."

"The children often bring cocoa and milk with their lunches."

"Hot cocoa at noon in winter; children and teacher furnish materials."

"Potatoes baked on stove if wished for."

"A cooking utensil in which cocoa may be made in winter."

An indifferent attitude towards this question on the part of the teacher usually is not reflected on the questionnaire, but it occasionally comes out in an answer like this to the following question: Are lunches available for all children?

"No, they can bring them if they choose."

USE AND SUPERVISION OF PLAY TIME

The change in attitude towards play is one of the outstanding features of modern times. Formerly it was almost considered a waste of time to play, or at least such activity was regarded with indifference. Now we are realizing that it has an extremely important part to play in the development of the personality, as well as the more obvious function of contributing toward physical "fitness". Capacity for "team work", co-operation, standards of fair play, and the ability to win or lose with the poise that is regarded by all as belonging to a "good sport", are qualities which are invaluable throughout life and are developed most easily in childhood through organized and supervised play.

The importance of supervision is often overlooked. People are inclined to feel that given a fair amount of space children can take care of themselves, but it has often been demonstrated that the bullies, of whom there are a few in practically any group of children, will soon dominate the situation, and the more timid children will not get a chance to use the swings, etc. Left alone, the trend of the over aggressive, selfish child tends to become firmly established and the timid child becomes still more timid

and perhaps resentful. With supervision and justice to all assured he has a chance to develop skill and become self-confident.

The school is a natural unit within which organized play can be developed in a most satisfactory manner. Class and school teams are of immense value in contributing towards that intangible school spirit or loyalty which means so much, and which carries over into the more serious side of school life. School entertainments serve the same purpose and are particularly helpful in developing initiative and latent talents in children. Serving on small school committees is a good preparation for many of the activities of adult life and tends to bring out executive ability and willingness to assume responsibility.

All of these more social aspects of school life center about the playground, gymnasium and auditorium. Every school should have a playground and at least every high school should have a gymnasium and auditorium. Only 12% of the schools investigated in this survey were reported to have well equipped playgrounds. 42% need better playgrounds or equipment.

The remaining 46% either failed to answer the question or the attendance was so small that we felt that a better solution of the problem could often be found through consolidation rather than increasing the equipment of so many small units. The children need the advantages fully as much as those in the larger schools, but at the present time it is obviously impossible to expect small rural schools to provide them. They haven't begun to meet the still more essential needs of sanitation and educational equipment.

Only 54% of the schools reported having entertainments of any sort encouraged and supervised, and with many of these there was simply a Christmas party. We placed them in this class if they reported any school entertainment at all during the year. 24% stated that no entertainments were provided for and 22% failed to answer the question. It is fair to assume that failure to answer this question usually means that there were no entertainments.

In general the playground needs were not expressed as vividly on the questionnaires. As would be expected the other points were emphasized more frequently, but a few are worth quoting.

"A better playground and not a mud hole."

"Children have to play in the street."

"312 children. Playground used continually during fair weather, not equipped. Gymnasium needed also."

"Playground apparatus to keep the boys' minds off fighting. 540 children."

"High school. Needs gymnasium, auditorium and playground apparatus."

"Surfacing playground so that it can be used without ruining one's shoes."

"Dead trees cleaned from the school ground and grounds graded and leveled."

"A baseball. The boys chipped in together and bought one but it was so poor it did not last a day."

900 pupils. "The playgrounds are in a very bad condition."

"Playground needs draining."

"A playground. The present one is small and children have to play in the road."

SUMMARY

There are 11,824 schools in New York State. 1,342 are in cities, 246 in villages and the remaining 10,236 are in the rural supervisory districts. Thus nearly nine-tenths of our schools are rural. 8,600 of these are one-room buildings, and in 3,018 there is an attendance of less than 10 pupils. The rural school district is an area two miles square, and the result is this unnecessary duplication of cheap buildings containing few pupils and failing largely to attract efficient teachers. It has been estimated that 54% of the schools are 50 years old or more, and that 13% have been in existence for 75 years. Some date back even to 1812.

Health problems in these schools for the purpose of this study were grouped into seven general subjects, medical inspection, health instruction, physical training, condition of buildings, special classes, hot lunches and the use and supervision of playtime. 4,244 schools (36% of the total number) were covered by the investigation and questionnaires were received for some schools in all but four counties. These were grouped as follows: 508 city schools (38%), 113 village schools (46%), and 3,623 rural schools. (The latter figure represents 35% of the total rural school buildings in existence, but it is estimated that about 8% of them are not in use but contracting with neighboring districts for the education of their children, so the percentage of actually maintained schools which was covered is somewhat higher.)

Medical Inspection. The medical inspection law provides for

an annual examination of every child who does not bring a health certificate from some other licensed physician. In all but 1.9% of the schools this form was complied with, but in 39% it consisted only of a very cursory inspection. In many cases no eye or ear tests were made and the heart and lungs were not examined with a stethescope. A careful examination was made in 38% of the schools investigated. 21% could not be classified because of insufficient data. There is a good deal of dissatisfaction with the system of medical inspection because of the absence in so many cases of any provision for follow-up work. This is usually dependent upon the services of a nurse, and 69% of the schools are never visited by a nurse. Only 15% are visited regularly as often as once a month, and the great majority of these are in cities or large villages. On the whole, medical inspection is very much better in cities than in rural sections, and more follow-up work is possible. Medical, surgical and dental clinics are usually available in cities but in many cases they are insufficient for the needs; especially is this true of dental clinics. In general a considerably greater proportion of defects are corrected in the cities than in the rural districts.

Health Instruction. Simple forms of health instruction are given in practically all schools, including talks on personal hygiene, cleanliness, proper foods, etc. 69% of the schools had formed health leagues or clubs of some sort to stimulate interest on the part of the children, and to make more probable the formation of health habits. 28% had made use of exhibits either prepared by the children or brought in from outside. 16% weigh their children every month and keep a class room record. 13% showed very little interest in health problems and reported no means of checking up to find out whether the children were forming health habits.

Physical Training. The large city schools have regular instruction in physical training given by the physical directors. This is also done in some of the villages. Occasionally the school nurse is also qualified to act as physical director. In the rural schools, however, this is left to the regular teacher, who receives her instructions from one of the physical directors. The work under such circumstances most often consists of merely a few exercises during the school hours. The windows are usually opened during these few minute periods.

Condition of Buildings. According to the regulations adopted by the State Department of Education, a sanitary survey of the school and its equipment should be made each year. 61% of the local school authorities had reported that they had complied with this. The rural school is usually cleaned only once a year, sometimes not as often as that, and for the rest of the time depends upon such sweeping or mopping as the teacher or pupils care to give it. It contains quantities of dust and powdered chalk, and oil for the floors is a very frequent need. The dust is stirred up by dry sweeping, and much of it remains in the room. At least 11% of the buildings now in use are poorly lighted and inadequately ventilated. In many others the windows are so arranged that there is often a strong glare directly in front of the children's eyes, producing eye strain at all times, and making it particularly difficult to see what is written on the blackboard. Overcrowding is not a feature of these schools in contrast to the city schools. Quite the opposite state of affairs eixsts, the schools far too often being run for a very insufficient number of pupils at a disproportionate expense.

It is so difficult to heat some of these schools that the windows are only infrequently opened during the winter. They occasionally become frozen down for long periods of time. Sometimes they are nailed down. 19% reported that their temperature could not be well regulated and 36% had no thermometer. Old double seats are in use and are impossible to adjust to the changes of a growing child. The disadvantages of having two children seated at a desk together are obvious but such a condition was reported from 13% of the schools. In 28% the desks could not be adjusted to fit the children. This probably does not include the total percentage of schools with the old style of desk but in the others there were so few children that each could be fairly well fitted.

23% of rural schools have no water supply, and water must be carried in a pail from a neighbor's well. Where the school has its own well the pail with a dipper for drinking purposes is a very common finding. In many cases where individual drinking cups are reported as being used, the children simply keep their cups in their desks but dip them into the common pail. 26% have no lavatories. In the others there is usually a single basin, and it is the rare exception to find individual towels, paper or otherwise, provided. 55% of rural schools still have outdoor

privies, and 13% of all toilets were reported to be in very poor condition. Some of the latter were chemical or flush closets in villages and cities but the majority were outdoor privies.

In the cities overcrowding is a very serious problem. With few exceptions our larger cities have outgrown their school equipment and are finding it almost impossible to get the necessary funds for increasing it. Conditions result, in many cases, which are a definite menace to the health of the pupils. Annexes are used which are quite unsuitable, and classes are held in basements and rooms with artificial light and insufficient ventilation. Many school buildings which were well constructed have been improperly cared for, and the artificial systems of ventilation seem to be particularly vulnerable. The toilets in modern well built schools are occasionally improperly cared for and permitted to get out of order but they are usually sufficient in number and in fair condition. On the whole, much more sanitary conditions are found in the city and village schools than in the rural ones. Lavatory facilities are usually sufficient for the needs, and in a fairly large number of schools paper towels are provided. The purity of the drinking water is almost always assured by municipal testing.

Of the 4,244 schools investigated, 8.8% were found to be in excellent sanitary condition, 53% were fair in this respect and 36% were distinctly unsanitary and constituted a real menace to the health and proper development of the children.

Special Classes. These are very seldom found in rural schools. There are not often a sufficient number of children in any one school needing such attention to make the need seem urgent, and yet when the total number of backward children is considered the need is great. Only by establishing a larger unit of administration can special class work be effectually developed in rural communities. 12% of the schools investigated reported having special classes for backward children, and 4.6% had open air classes, not necessarily in their own building, but available for use by their children.

Hot Lunches. Lunches can usually be obtained in High Schools at about cost. The tendency to serve hot lunches or a hot dish at noon, at least in the winter months, is steadily increasing. 14% of all the schools investigated served a hot lunch of some sort either

free or at cost. 7% (usually rural schools) prepared a hot dish or drink during the winter, and 68% made no provision for lunches, the children sometimes going home but very often depending upon cold lunches carried with them.

Use and Supervision of Playtime. The need for playground space and equipment in our cities cannot be over-emphasized and the longer these municipalities wait before securing land for playgrounds, the greater the cost will be. The importance of properly directed and supervised play for small children, and games requiring skill, self control and team work for older ones, is fully established, but our cities are very slow in providing playground and gymnasium space or equipment. In the villages and the larger rural schools adequate space is more often available, but good equipment is rarely found. In the strictly rural school it is practically non-existent. Only 12% of all the schools had large well equipped playgrounds. 42% more were large enough to warrant such an expenditure and were in real need of either equipment or space or both. Many of the city schools are in need of an auditorium or suitable place for entertainments. 54% of all the schools reported that they encouraged and gave supervision to entertainments. 24% made no provision of this sort of thing.

RESPONSIBILITY OF COMMUNITY

Under the present system the responsibility for conditions in any rural school district comes squarely back to the adult residents of that district. It is they who elect the trustees and determine the policy in regard to expenditures. The power of the State Department of Education is very limited. It can and does establish regulations which must be complied with if new buildings are to be constructed, but it stands almost helpless before the large number of antiquated, unsanitary buildings. It occasionally condemns a building, but we find such buildings still in use. It has not sufficient popular support to enable it to enforce its regulations, as was proved in its failure to get outdoor toilets done away with. It is necessary to go through the long slow process of interesting each school district individually in the question of sanitary toilets, and in its thousand and one other needs.

In city schools the responsibility also comes back eventually to the general public, but it is so far removed from the individual

citizen and sometimes so tightly wound up in politics that the average citizen has very little chance to make his wants felt.

In the country the average citizen is either ignorant of school conditions or indifferent. In the city he is probably indifferent also, although he excuses it on the ground of impotence. We can more or less endure having our streets and public buildings made the playground of political parties, but our schools surely should be run on non-partisan principles. That the city schools are so far ahead of the rural ones in regard to the educational advantages offered is due simply to the fact that it is possible to get better executives to undertake a large piece of work than a small one, and that education like anything else can be provided more economically in large quantities than in small lots. It has been figured out by the Department of Education that it costs twice as much to educate a child in a school of less than 10 pupils as it does in a city school.

It is only through bringing home vividly the needs of the schools and the responsibility of all of us that we can get direct, effective action, and popular support of a progressive policy.

The indifference of the residents, parents and others, in school problems was emphasized very frequently on our school questionnaire. Some are quoted:

"Better fathers and mothers, who will see that we have better buildings, better equipment, better teachers."

"The school (225 pupils) needs a sanitary toilet system; several lavatories; a janitor who will do his work in a satisfactory manner; a Board of Education that will work for improvement of schools rather than to keep down taxes."

"More social life in the school and better facilities which could be secured by consolidation with nearby districts."

"Practically all rural schools need more than the taxpayers can give them."

"Liberal minded trustees."

"Trustees asleep."

"Some way of interesting the parents in the school life of the children."

"Interest of parents in modern education."

"Community spirit."

"If parents could be made to see the needs of the children they could improve the school."

"An atmosphere such that would make the community know that the public school existed for the pupils rather than the pupils for the public school."

"Get people alive to the work of the school."

"Indifference of parents. Lack of cooperation. Not enough interest shown by people in the district in visiting the school."

"Financial support by the district, followed by a little personal interest in the progress of the children, mixed with some broadmindedness and seasoned with common sense."

"Compulsory education of the parent in regard to need of text books, charts, ventilation, need of play, medical attention and more."

"Parents are not interested in welfare of school."

"Interest in the school seems to be lacking by the people in the district."

"This little school is one of the most attractive in the district due to the interest of a certain family in the neighborhood."

13 pupils. "We have nothing but a poor building which is poorly kept, and a few books. The main trouble is that the school is a secondary thing and they want to get along with the least possible expense."

"Parents should realize that they are not living in the log cabin age."

RECOMMENDATIONS.

As a result of the school health survey in New York State, it would seem that certain definite lines of action should be followed. The recommendations given are those which, basically or materially, affect the health of the children:

1. An adequate building program that shall care for the needs of the present and provide for the needs of the future. The need of more school buildings is particularly evident in the cities. The lack of any attention to this matter during the years of the war has resulted in a situation which needs immediate attention. City schools are overcrowded and in many instances have been allowed to degenerate in plant and equipment.

Building plans for rural schools should take into consideration the question of consolidation. The present type of rural school house is, in many instances a disgrace to the community and a menace to the health of the children. Building programs for the future must take into account the health as well as the scholastic needs. The country school house need not be costly or elaborate, but it must provide for proper drainage, sanitary toilet facilities, an adequate supply of pure water, proper ventilation, lighting and heating and the equipment and maintenance of the classrooms in accordance with the well-known requirements of school hygiene. While the rural school is not overcrowded, its

sanitary deficiencies are so great that the need for a proper building program is as great in the rural communities as it is in the cities.

2. A separate budget should be maintained in each community for all school needs, including the matter of health supervision. This was found to be the usual method of financial administration in cities of the third class. Here the boards of education have complete control of the tax budget and levy the school taxes. It would be wise to have such a system extended to cities of the first and second class, making the school boards absolutely responsible. This would provide also for a more continuous and effective school administration and eliminate the present dependency of school boards upon the variable and often-changing political conditions in the community.

3. The county unit should be established as the basis for school administration and taxation. This will not be easy. The first step must be to make the situation clear to the people of the state so that they will be willing to try out the new system. Something more than a permissive legislative act is required. Local opinion must undoubtedly be the force behind all efforts at consolidation of the schools. The experience of other states in this matter has shown that the enlargement of the school district with the establishment of fewer, more centrally localized schools which are well built and well equipped, has resulted in the provision of more nearly adequate educational facilities, proper sanitary and hygienic surroundings and that it is, above all, economical. The transportation of children in proper conveyances can be carried on without hardship or injury. It has been proved that instead of decreasing the attendance at school, the county unit, with these larger schools, has actually increased the attendance. There is less truancy. The classes can be graded and the children have the added interest of working and playing with groups of children of the same age and interests. The cost has been shown to be not as great as where a number of small schools are maintained and the burden of taxation would not fall as heavily upon many small, poor communities which are now required to maintain schools for only a few pupils. It should also be recognized that the position of county superintendent offers a larger and consequently more attractive field to an administrator with ability than does

6. Conveying children to centralized rural schools by the modern method.

the present supervisory district. A proper program for consolidating the rural schools would seem to be an urgent need of the present.

4. Every school child in the state should be under careful health supervision. This means that sufficient physicians and nurses should be employed to visit the schools at regular intervals and to supply the necessary health instruction and care. In rural communities there should be a physician for every 3,000 children and a nurse for from 1,000 to 1,500 children, depending upon the distances to be traveled. In cities, there should be a physician for every 5,000 children and a nurse for every 2,500. Anything less than this is inadequate and proper health care will not be assured. Provision should be made for proper medical, surgical and dental clinics in every community so that the health needs of the child may be met. This system of health inspection should be under constant supervision by the proper officials of the state. The methods to be followed should be carefully outlined by the

chief medical inspector of the state and he or the department which he represents should have the authority to see that the methods are followed in all communities.

5. Instruction in health matters and health habits should be carried on in a more vital and interesting manner. The mere teaching of hygiene is not enough to stimulate interest in health topics. At the present time such talks on health should be given by the school doctor or the school nurse, but provision should be made in our normal schools for teachers so that future graduates may have had the opportunity of receiving a complete course of instruction in teaching health habits and proper methods of living.

6. A sanitary survey of every school and its equipment should be made each year. Regular forms should be filled out for this purpose and should be submitted to the chief medical school inspector of the state. The latter official should issue adequate and detailed instructions as to the sanitary maintenance of school buildings, and local school trustees should be held responsible for seeing that these sanitary and hygienic conditions are maintained.

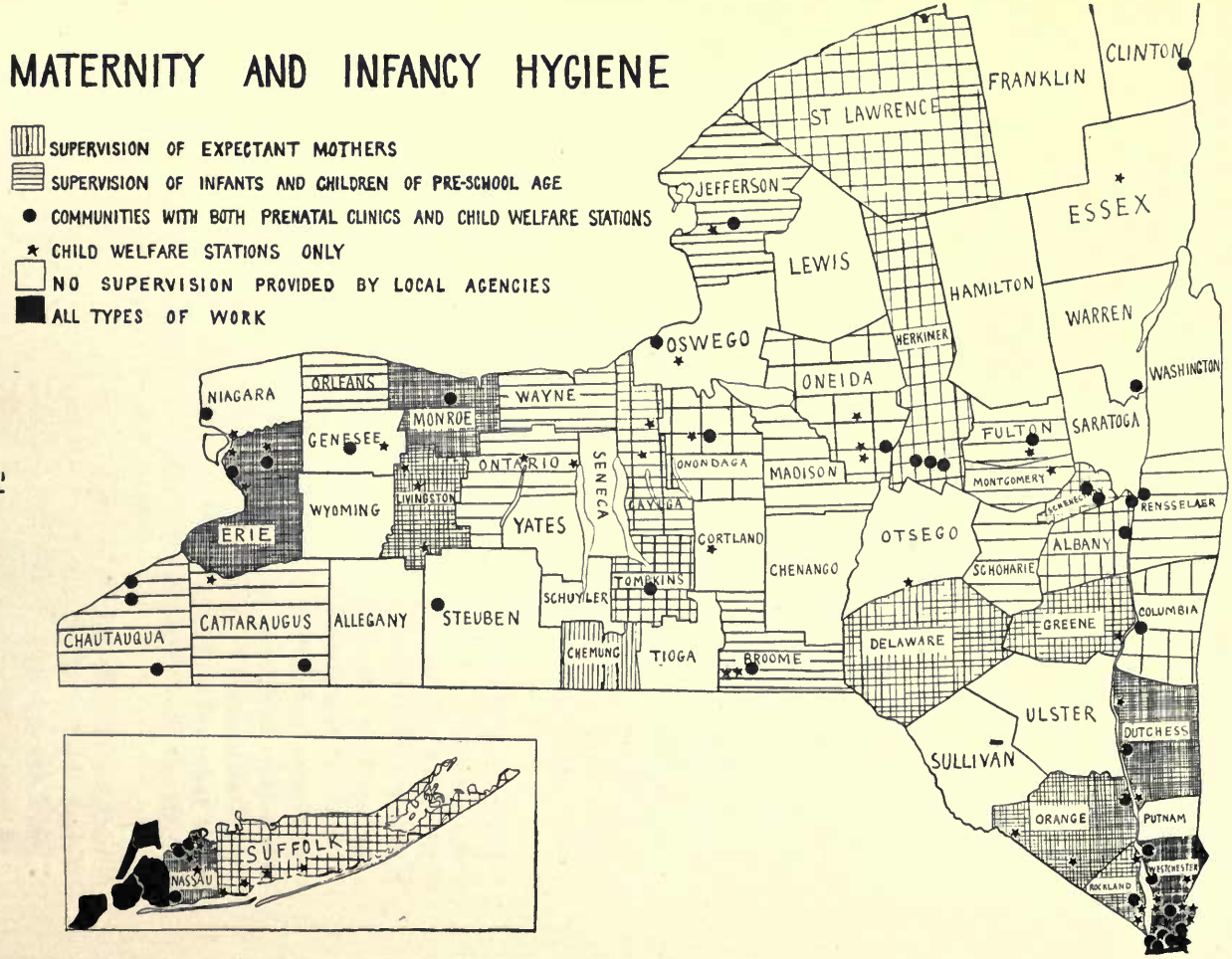
7. Adequate and well-equipped playgrounds are needed in connection with each school building. The present provision of such recreation places is totally inadequate, and even in those that are maintained proper equipment is lacking. Proper play and recreation is an important part of the health program.

To summarize, the Committee feels that consolidation of rural school districts, more adequate building programs, enforcement of the state medical inspection law with regard for the real spirit of it rather than the mere compliance with its form and the provision by local communities of an adequate number of school nurses, are vital and immediate needs. It urges the adoption of the county as the unit of administration and taxation as the most promising means of filling these needs in rural schools. An ideal system of health supervision would call for many more recommendations, but the present situation is so far below the safety line that the Committee feels warranted at this time in asking for only the minimum requirements of safety and health.

It is within the power of the citizens of this state to see that the children receive a square deal. Certainly, New York State cannot afford to allow this present condition of neglect to continue. The amount of money that must be expended in order to provide

proper health care is well within the means of any of the local communities. The results that may reasonably be expected from such an expenditure are incalculable. There is no reason why the children of New York State should not be the healthiest in the world. The methods of assuring them good health are simple and can easily be put into practice in any community.

MATERNITY AND INFANCY HYGIENE



Part II

PROVISIONS FOR MATERNITY AND INFANT CARE THE PRE-SCHOOL CHILD

There is an old truism, "Upon the health of the child depends the welfare of the race." Recognition of this fact is practically universal among us as individuals but is only beginning to activate us as a social group. We have made a start, however, and this newer way of facing our problems is a most hopeful sign and one which is already bringing in results. The second part of this survey is a study of those beginnings of social activity which indicate acceptance by our communities of their responsibility for the protection of mothers and infants and the care of children of pre-school age.

In the first part of this survey the unit of study was the individual school. In this section, however, the unit taken was the civil division, and the questionnaires were prepared to cover all types of work which were being carried on for expectant mothers, infants and children of pre-school age in the different cities, towns and villages of the state.

The state contains 1,441 civil divisions, including 58 cities, 450 incorporated villages and 933 townships. These are grouped in 57 counties outside of New York City. Because of the large number of civil divisions it was found better as a matter of expediency to tabulate the material gathered under a larger unit and the county was therefor selected. More and more the form of county organization is being recognized as the best that can be obtained for the rural districts, and even the cities, towns and villages can find it an advantage to consider themselves an integral part of the county, although the work they are carrying on may be locally separated.

The field of work in maternity and infant care in New York State is a matter of much more recent inception than the system of public schools. It varies widely in extent and type in the different communities. Great local interest and much enthusiasm have caused the protection given to mothers and babies to be developed

to a most satisfactory extent in some communities, while in others, lack of public opinion and any functioning local organization has meant that there is practically no form of infant and maternity welfare work being carried on. There is no uniform system throughout the state. The type of organization varies from that which is promoted by many well-organized health boards in the large cities to the almost universal dependence upon local private or semi-private organizations in the rural communities. The State Department of Health, through its Division of Maternity, Infancy and Child Hygiene, provides supervisory and educational work throughout the state. It has already accomplished a large amount of good, but its field is almost unlimited and its appropriation has been small and not in any way sufficient to meet the need. The State Division of Maternity, Infancy and Child Hygiene has held health consultations in many places throughout the state and has maintained a health-mobile which has visited a number of the counties. Their method is usually to select first one county and then another as a unit for the purpose of demonstrating the value of maternity and infant welfare work, the idea being that the counties thereafter should take over the work and carry it on at their own expense.

The purpose of this survey has been to stimulate interest in the work that the State Department of Health is doing, to obtain for them, if possible, a larger appropriation so that their work may be made more effective and to organize the women of the state as an intelligent co-operative group that can be depended upon by the State Department of Health for local assistance. The time of publication of this report has made it possible to state that one of these objects, at least, has been achieved. For during 1922 the state has appropriated $160,000 to be spent by the Division of Maternity, Infancy and Child Hygiene of the State Department of Health. The second object, that of making many women of the state intelligent regarding local conditions, is, we believe, also to be placed among the results of the survey.

It must be remembered, however, that no matter how extensive the activities of the State Department of Health may be, the local community must necessarily remain responsible for seeing that any work suggested by the State Department of Health is not only initiated but carried on and the local community must also have a knowledge of these local conditions and be able to understand

its own most urgent needs. In the final analysis, the continued health of mothers and babies will depend upon it.

The position of New York State with regard to its infant death rate is not an enviable one. Of the 23 states in the birth registration area of the United States, New York State stands eleventh. In 1921 the infant death rate in New York State was 75. This means that of every thousand babies born in the state during that year, 75 died. The significant fact, however, is that the rate for New York City in 1921 was 71 infant deaths per thousand births, and for the rest of the state it was 81 per thousand births. This relative variability between the city and the state has been maintained for a number of years. It seems evident that the rate for New York State outside of New York City should be as low as for the city, and if proper attention can be given to the problems of infant welfare in the state, in all probability the present death rate can be cut in half.

The low infant death rate in New York City can, to a large extent, be credited to the public health work that has been carried on for the past twelve years. In the five boroughs of New York City there are 104 baby health stations and 59 prenatal clinics. Outside of the city the figures seem to be less encouraging. In 43 other cities, towns and villages there are one or more prenatal clinics or health centers where some prenatal care is given, but 12 of these are in Westchester and Nassau Counties, leaving only 31 communities with prenatal clinics to be distributed among the remaining 55 counties of the state. Forty-four communities have child welfare stations but no prenatal clinics. Twenty-nine cities make no provision for the care of expectant mothers. In 21 counties of the state no organized work whatever is being carried on along the lines of maternity and infant hygiene. There are public health nurses in most of these counties but their time is taken up with other duties such as tuberculosis work or visiting the schools. In Franklin County, which in 1920 had an infant mortality rate of 120—the highest in the state—there is no public health nurse giving any time to infant welfare work and there are no child welfare stations. In 1921 Hamilton County had an infant death rate of 164 and a similar situation existed, that is, no infant welfare work was being carried on in that county during that time.

It is recognized that in many of these counties with a scattered

population, the best type of work is that of establishing a visiting nurse system rather than through attempting to organize one or more child welfare stations. Nevertheless, at the present time, there can be no excuse for any county failing to recognize its responsibilities in this direction and providing the necessary care for its mothers and children.

The State Department of Health has published the following interesting statement of statistics with regard to the maternal and infant death rates of 1921:

> "In 1921 there occurred in the entire State of New York 1,382 deaths of mothers from causes connected with childbirth; of these 398 died from puerperal poisoning. From the latter condition, that in the majority of instances is preventable, there occurred 225 deaths in the State of New York outside of New York City and 408 deaths from all other maternal causes.
>
> "In the State, outside New York City, the chief cause of death in children under one year of age was premature birth and the second in importance was gastro-intestinal diseases, chiefly from diarrhoea and enteritis, an ailment that is preventable and often curable. Out of a total of 8,464 babies who died under one year of age in the up-state area, 2,170 or 26 per cent. died as the result of premature birth and 1,746 or 21 per cent. died from gastro-intestinal diseases. Next in importance were the respiratory diseases that caused 11 per cent. of the infant deaths; these diseases include chiefly tuberculosis, bronchitis and pneumonia. Out of the 8,464 children who died in the State in 1921, outside of New York City, 4,681 or over one-half did not live through the first month of life. In fact, of all the children 2,008 or 24 per cent. did not live through the first day of life and 4,124 or about one-half did not finish their first two weeks of life. This makes it clear that the dangers to the newborn child are greatest immediately after it is born, its security from sickness and death becoming greater with each day that it lives. Therefore efforts to prevent this loss of child life, to be highly effective, should begin with the mothers before the children are born, and painstaking care must be given the newborn child during the first few days and weeks of its life."

Because this question must necessarily be a local one and because each community must be responsible for conditions found within its own borders, it has seemed wise to give a separate, detailed account of conditions found in each county of the state in addition to the final tabulated and summarized report.

The points taken up in the second questionnaire cover such topics as health supervision for expectant mothers through clinics, health centers or home visits by nurses; provision for hospital

care for obstetrical cases and for nursing care at home; milk supply; number and activity of public health nurses; child welfare stations, day nurseries and playgrounds for pre-school children. These subjects are covered in great detail in the following series of questions.

QUESTIONNAIRE NO. 2

Prenatal Care, Care at Birth, Care of the Infant and Child of Pre-school Age

Name of Investigator?
Address?
City, Town or Village?
County?

I. Prenatal Care.

A. Is any health supervision given to expectant mothers?
   1. Through what organization?
      a. Are its activities statewide, or confined to city, township or village?
      b. Is organization supported by public or private funds?
   2. Is the care given in clinics or health centers?
   3. Is the care given by home visiting?
   4. Are physical examinations made?
   5. How are expectant mothers persuaded to take advantage of this supervision?
      a. How is contact made with them?
   6. How many women were reached last year?
   7. Are all women who cannot secure a private physician cared for?
   8. Are women in remote sections reached?

B. Is any educational work done?
   1. By printed matter sent out giving simple instructions?
      a. Through what organization?
      b. Paid for by public or private funds?
   2. Through visiting nurses?
   3. Any other way?

C. Is any protection given by local interests to expectant mothers in industry? (No State Law provides for this.)
   1. Maternity insurance?
   2. Maternity benefit?

D. If no prenatal care is being given, has any attempt ever been made to inaugurate such work?
   1. By whom?
   2. Why did it fail?

II. Care at Birth.

(During the war there were approximately the same number of deaths from child-birth as there were soldiers killed in action. Annually in the United States there are about 25,000—half are preventable.)

A. How many hospitals take obstetrical cases?
   1. Number of beds?
   2. Number of cases cared for last year?
   3. Are more beds needed?

B. How many hospitals or dispensaries send physicians to deliver women in their own homes?
   1. Number of cases last year?

C. Are there sufficient physicians available for rural calls?
   2. Have you heard of any cases where physicians could not be obtained?

D. Is there any provision for nursing care at confinement in homes?

E. Is there any provision for domestic help to poor mothers during period of confinement?

F. Number of maternity homes?
   1. Are they licensed and supervised by the health authorities?
   2. Number of cases last year?

G. How many midwives are registered with the local registrar of vital statistics?
   1. Are they all licensed by the State Commissioner of Health? (Required by law.)
   2. Are midwives prosecuted for practicing illegally?
      a. Number prosecuted last year?
   3. Is supervision given by State or local authorities?
      a. By Police Department?
   4. Is educational training available for women who wish to become midwives?

H. Can sterile supplies for labor be obtained at small cost?

I. Care of babies' eyes:
   1. Is silver nitrate solution furnished without charge by Health Department?
   2. Are cases of babies' "sore eyes" reported promptly?

III. Care of the Infant (Birth to Two Years) and Child of Pre-school Age.

A. Milk supply.
   1. What grades of milk do you have?
      a. Certified?
      b. Grade A? Raw? Pasteurized?
      c. Grade B? Raw? Pasteurized?
      d. Grade C? Raw? Pasteurized?
   2. Is milk for retail trade always sold in bottles?
   3. Have you milk stations which supply milk free or at small cost?
      a. How many?

B. Public Health Nurses.
(The term, Public Health Nurse, as used here refers to a person who is essentially a teacher of hygiene and preventive medicine and who does no bedside nursing except for demonstration or in emergencies.)
   1. How many nurses have you for infant work?
      a. Full time?
      b. Part time? Number of hours per week?
      c. Do the same nurses have supervision of children of pre-school age?
   2. Have you special nurses for children of pre-school age?
      a. How many?
   3. Do they visit well children or only sick ones?
   4. What organizations employ your nurses?

a. Department or Board of Health?
b. Red Cross?
c. State Charities Aid?
d. Visiting Nurses Association?
e. Life Insurance Companies?
f. Any others?

C. Child Welfare Stations or Health Centers.
1. How many have you?
2. Children of what ages are admitted?
a. Is the attendance largely of infants or older children?
3. Number of children attending last year?
4. Under what supervision?
a. Department of Health?
b. Associated Charities?
c. Other organizations?
(1) How are funds secured?
5. Is a physician employed?
6. Is a nurse employed?
a. How many?
7. Are records kept?
8. Is provision made for the correction of physical defects?
a. Who carries on this follow-up work?
b. Are there sufficient clinical facilities for treatment?
9. Are volunteer workers used?
a. If not, would organization accept such aid?
b. What suggestions can you make as to type of volunteer work that would be most efficient?

D. Educational Work.
1. Little Mothers' Leagues.
(Little Mothers' Leagues are groups of young girls over twelve years of age who are taught personal hygiene and methods of baby care. They are under the direction of the State Department of Health.)
a. Have you any such leagues?
(1) If not, is your community of a type that would make it desirable to form one?
2. Are methods of baby care popularized in any other way?
a. Through Children's Health Consultations?
b. Through local newspapers or magazines?
c. By child welfare exhibits?
d. By special pamphlets distributed?
e. By lectures?
f. Any other way?
3. What organizations are supporting educational work?
4. Are mothers taught the importance of avoiding communicable diseases?
a. By whom?
(About 90% of all cases of contagious disease occur in children under five years of age and 80% of deaths from this cause occur during this age period.)

E. Dietitions and Nutrition Workers:
1. How many are employed?
2. Do they instruct mothers in feeding children?
3. What organizations employ them?
a. Public or private?
4. Do they reach women in rural homes?
5. If none are employed, does nurse give this instruction?

F. Day Nurseries:
   1. How many have you?
   2. How many children do they care for annually?
      a. What ages are admitted?
   3. Do they have permits from the Board of Health?
   4. Are they supervised by a trained nurse or physician?
   5. Are the children examined by a physician before admission?
   6. How are the nurseries supported?
   7. Is any charge made for taking children?

G. Playgrounds.
   1. How many playgrounds are open to children under five years of age?
   2. Are there enough to care for all children who need playgrounds?
   3. Are they supported by public or private funds.
   4. Is the play supervised?
      a. By whom?
   5. Are games taught?
   6. Is there any opportunity for volunteer work?
      a. Is it difficult to obtain such assistance?
      b. Could the efficiency of the recreational work be increased by volunteer assistance?

Tables 4, 5, 6 and 8 give the data gathered from these questionnaires, and the findings are also indicated on the map on page 74. We succeeded in gathering information from each of the 1,441 civil divisions in the state through our county committees, so the figures given in the tables and the picture presented by the map represent fairly accurately and with very few omissions conditions as they exist throughout the state.

MATERNITY AND INFANCY HYGIENE IN INDIVIDUAL COUNTIES

Albany County

Contains 17 civil divisions (three cities, 10 townships and four incorporated villages) and has a total population of 179,575. Its rural infant mortality rate in 1921 was 92. In Albany City it was 78 and in Cohoes 109. The only provisions for prenatal, maternal, and infant care in the County are in Albany, Cohoes and Colonie township.

Prenatal clinics are held in Albany Hospital and the Homeopathic Hospital, and social workers get in personal touch with prospective patients. Three hospitals in the City of Albany take obstetrical cases and a total of 1,040 were cared for last year. The Albany Hospital has just started a delivery service to attend patients in their homes and nursing care is provided by the

(Courtesy of the State Department of Health)

A Little Mothers' League in a Rochester Public School.

Albany Guild of Public Health Nurses. Seven midwives are registered. Domestic help is given through the Catholic Charities Aid and the Associated Charities. The Brady Maternity Hospital cared for 282 infants last year until they were weaned and their mothers were provided with work, etc. Two public health nurses devote their full time to infant work and two child welfare stations had an attendance of 1,988 last year. Educational work is carried on in many ways, notably by five Little Mothers' Leagues, which granted diplomas to 75 children, by special pamphlets, exhibits, newspaper articles, etc. The Christian Mothers' Union in the South End Dispensary, the Red Cross, the City and State Department of Health, the Metropolitan Life Insurance Co., and the Children's Bureau are supporting educational work. There is a nutrition class in the South End Dispensary. Two day nurseries care for 5,240 children. Five playgrounds are open to children under five years of age.

Cohoes gives health supervision to expectant mothers through a clinic and educational work is carried on by the Red Cross. One full time public health nurse is employed by the Board of Health for infant work. There is one child welfare station. Educational work is being done through Little Mothers' Leagues, newspapers, exhibits, children's health consultations, etc. There is one day nursery, and three playgrounds are open to children of pre-school age.

In Colonie township a nurse for infant work is employed by the Red Cross and she also gives some supervision to expectant mothers. Cases needing it are taken to clinics in Albany.

Throughout the rest of the county practically nothing is being done except the work of a county nutritionist employed by the Red Cross and two single clinics held for children in Watervliet. Some prenatal work was attempted in Altamont and a public health nurse was employed but she was withdrawn.

Allegheny County

Contains 40 Civil Divisions (29 townships and 11 incorporated villages), and has a total population of 40,216. Its infant mortality rate in 1921 was 87.

No work is being carried on in the county which is primarily directed towards lessening the risk of maternity and lowering the infant death rate. There is no maternity hospital and no

health supervision is given to expectant mothers. A new general hospital is just being opened in Wellsville, which will have seven beds for obstetrical cases. Formerly only emergency cases were taken. A little educational work is carried on through the efforts of the Home Bureau and the State Department of Health. There is a community nurse in Alfred, a school nurse in Wellsville and a Red Cross nurse in Bolivar, but they are occupied with other duties. There is a shortage of physicians throughout the country.

Broome County

Contains 25 Civil Divisions (one city, 16 townships and eight incorporated villages), and has a total population of 85,860. Its infant mortality rate for the rural area in 1921 was 79 and for Binghamton was 82.

Health supervision is provided for infants and expectant mothers in the city of Binghamton. This is given both through clinics and home visiting by child welfare nurses. There are four hospitals in Binghamton taking obstetrical cases, one in Johnson City, one in Endicott, and one in Union. It is reported that more beds for maternity cases are needed in the city of Binghamton. There is a supervised maternity home licensed by the health authorities. Nine midwives are registered.

There are eight nurses in Binghamton giving full time to infant care and the care of pre-school children. There are public health nurses in Union, Johnson City, Windsor and Deposit and some time is given by them to infant work.

Five child welfare stations are located in Binghamton taking children from three months to six years. There is one in Johnson City, one in Windsor and one in Endicott.

A nutrition worker is employed by the Red Cross and the Broome County Health Association, who instructs mothers in feeding of children.

There are two day nurseries in the city of Binghamton which care for about 5,000 children annually. These nurseries are supported by the Humane Society.

Cattaraugus County

Contains 50 Civil Divisions (two cities, 32 townships, and 13 incorporated villages) and has a total population of 66,122.

Its rural infant mortality rate in 1921 was 77, in Olean it was 81 and in Salamanca 95.

The only work organized primarily for the care of expectant mothers during pregnancy and confinement and for the care of infants is limited to the city of Olean, where there is a health center supported by the Red Cross, which examined and gave advice to 172 women last year. Two hospitals in the city take obstetrical cases and one is being enlarged. The Red Cross provides nursing care and domestic help to poor women during confinement. One midwife is licensed in the city. Two Red Cross nurses give part time to infant work. There is one child welfare station supported by the Red Cross at which there was an attendance last year of 427. Educational work is being done through the board of health nurse, the Anti-Tuberculosis Society and the Red Cross, and two Little Mothers' Leagues have been formed. There are seven playgrounds open to children of pre-school age.

Salamanca contains a hospital which admits obstetrical cases.

Two townships, Franklinville and Gowanda, have public health nurses who give some supervision to expectant mothers through home visiting. The contact with them is made through the school children. There is a baby welfare station in Gowanda for weighing and measuring. There is a shortage of physicians for rural work and cases have been reported from Great Valley and Limestone where no physicians could be obtained. A county tuberculosis nurse helps with the educational work.

Cayuga County

Contains 33 Civil Divisions (one city, 23 townships, and nine incorporated villages), and has a total population of 67,741. Its mortality rate for infants in rural districts in 1921 was 70, and in Auburn 73.

There is no organized prenatal work in the county, but some supervision is given to expectant mothers through home visiting in Auburn and in Brutus township, including Weedsport. In the city this work is done by the visiting nurse of the City Hospital and in Brutus by the nurse employed by the Red Cross and Metropolitan Life Insurance Company. Six midwives are registered in Auburn. One hospital takes obstetrical cases and cared for 262 women last year, but it has no outside delivery service. One case was reported in which no physician could be obtained.

The city nurse visits needy mothers during the period of their confinement. There are also two maternity homes. A small hospital in Genoa takes obstetrical cases. There is a maternity home in Weedsport which accepts women from Brutus township, and cared for eight cases last year.

There are two child welfare stations in Auburn with physicians in attendance, one of which is open in Summer only. These are supported by funds raised through the Neighborhood House and Parent Teachers Association and Red Cross. Six nurses in Auburn give part of their time to infant work, but this consists chiefly in caring for sick children rather than in preventive work. A child welfare station is also open for the children of Brutus township and Weedsport. A nurse is in attendance and the expenses are paid by the Red Cross, the Metropolitan Life Insurance Company and the Board of Education. One milk station is open in Auburn during the summer. Grade A milk is produced in Auburn and certified milk can be obtained from Syracuse for those who can afford to pay for it, but dip milk is still being peddled in the city. One nutrition worker is employed by the Red Cross to do educational work. One day nursery admits children between one and twelve years of age and has an average daily attendance of 28. There are eight playgrounds which admit children of pre-school age. They would be glad to use volunteer assistants to teach games, etc. There are also two playgrounds in Port Byron.

A certain amount of educational work is carried on through a few of the other townships and villages through the activities of the Home Bureau and the Child Welfare Committee.

Chautauqua County

Contains 41 Civil Divisions (two cities, 26 townships and 14 incorporated villages), and has a total population of 117,397. Its infant mortality rate in rural districts in 1921 was 66, in Dunkirk 82, and in Jamestown 71.

In the two cities of this county, Jamestown and Dunkirk, and in one village, Fredonia, organized work is carried on along the lines of maternity and infant hygiene. Elsewhere in the county practically nothing is being done.

Jamestown maintains a health center where supervision is given to expectant mothers through the Visiting Nurses Associa-

tion, and also provides for home visiting—128 women were reached last year. It has two hospitals which provide thirty beds for obstetrical cases, but which make no provision for outside deliveries. Four midwives are registered in the city. There is a child welfare station which has two children's clinics and one well baby clinic and which had an attendance of 393 last year. Four nurses give part time to infant work and twelve physicians volunteer their services. Little Mothers' Leagues have been formed in Jamestown and educational work has been carried on through child health improvement contests. One day nursery cares for 35 children daily. Eight playgrounds are open to children of pre-school age.

In Dunkirk health supervision is given to expectant mothers through a health center maintained by the Red Cross and Anti-Tuberculosis Society and about 40 women were reached last year. Some home visiting is also done. In the same building there is a child welfare station for infants and children of pre-school age, with a clinic. The physicians' services are volunteered. One nurse gives full time to work with infants and children of pre-school age and 350 children attended the clinic last year. A day nursery is housed in the same building and had 3,482 admissions last year of children between six months and ten years of age. There is a small playground in connection with the day nursery. One hospital has 14 beds for obstetrical cases, but has no outside delivery service. There is no provision for nursing care nor domestic help for poor women during confinement. Six midwives are registered and licensed.

In Fredonia occasional health supervision is given to expectant mothers through the public health nurse from the health center which was started by the County Tuberculosis Society and is maintained by public funds and the Red Cross. Eighty children attended the health center clinics. One nurse is employed and the physician's services are volunteered.

Except for some general educational work carried on through the Anti-Tuberculosis Society, the Red Cross and the Health Department, nothing else is being done along these lines in the county.

Chemung County

Contains 16 civil divisions (one city, 11 townships, and

four incorporated villages), and has a total population of 55,099. Its mortality rate for infants in rural districts in 1921 was 86, and in Elmira 65.

There are no prenatal clinics nor child welfare stations in the county. In Elmira there are three visiting nurses doing bedside work, and they gave some supervision to about sixty expectant mothers last year. There are five hospitals in the city and about 625 maternity cases were cared for last year. The day nursery during the past year has reached forty-three families. Children from seven weeks to seven years are admitted.

A splendid piece of demonstration work in maternity hygiene is being done by the county public health nurse employed by the Red Cross; 56 visits were made by this nurse in all parts of the county for supervision of expectant mothers and 20 cases were cared for. Ten cases were not attended by a doctor because of lack of money to secure one.

Neither the city nor the county employ nurses for infant work or for children of pre-school age. Policy holders in the Metropolitan Life Insurance Company have the services of a visiting nurse for five weeks after confinement.

Chenango County

Contains 29 civil divisions (one city, 20 townships and eight incorporated villages), and has a total population of 36,648. Its infant mortality rate for the rural sections in 1921 was 61 and for the city of Norwich 76.

There is practically no supervision of maternity and infant hygiene throughout this county. A little educational work is being done by the Red Cross organization. Two hundred and fifty women took the home nursing lessons taught by the Red Cross nurse last year. The city nurse in Norwich can only touch this work, as her duties are so numerous.

A hospital in Norwich provides six beds for maternity cases. There are no child welfare stations.

Clinton County

Contains 19 Civil Divisions (one city, 14 townships and four incorporated villages), and has a total population of 48,815. Its mortality rate for infants in rural districts in 1921 was 114, and in Plattsburg 106.

The only provision in the county for supervision of expectant mothers is in the city of Plattsburg under the direction of the child welfare station. A clinic is held and the nurse does some home visiting. Educational work is being done also by the Red Cross. There are two hospitals in Plattsburg which provide 12 beds for maternity cases.

One nurse is employed for infant work and she also has the supervision of children of pre-school age. The Board of Health, the Red Cross and Metropolitan Life Insurance Company contribute funds for public health nursing.

The child welfare station in Plattsburg has in attendance children from birth to school age, an average of 100 a year. Educational work is being done through Little Mothers' Leagues. Child health consultations have been held and child welfare exhibits.

Columbia County

Contains 23 Civil Divisions (one city, 18 towns and four incorporated villages), and has a total population of 43,983. Its infant mortality rate in rural districts in 1921 was 62 and in Hudson 61.

Supervision for expectant mothers is provided in Hudson. A clinic is held at the public health center and care is also given by home visiting. Educational work is carried on by the Red Cross and the school nurse in the village of Chatham. The office of the school nurse, located at the school building, is sometimes used as a clinic. The village of Philmont employs one public health nurse, who is able to give some attention to expectant mothers while on her other duties. The State Charities Aid executive while traveling about the county is often able to distribute pamphlets and literature.

A hospital taking maternity cases is located in Hudson, but it only has three beds for this service. One nurse in Hudson gives part time to infant work, and there is one child welfare station where infants are admitted. A physician gives his services free. A Little Mothers' League has been organized in the city.

Cortland County

Contains 16 Civil Divisions (one city, 16 townships and three incorporated villages), and has a total population of 30,469. Its mortality rate for infants in rural districts in 1921 was 34, and in Cortland 66.

The city of Cortland has just inaugurated a plan of work for expectant mothers and infants under the direction of the board of health. A clinic is held once a week at the day nursery. The city health officer advises the mothers and examines the babies. Owing to lack of room, only eight babies can be seen at each time. About fifty babies have been examined since the work has been started.

The county hospital located in the city of Cortland has an average of 100 obstetrical cases a year. A new maternity ward is being opened which has 21 beds.

The city nurse is employed for infant work as well as for other public health work. The Child Welfare Committee and the Women's Club have been very active in educational work and have popularized more efficient methods of baby care. The county committee for the prevention of tuberculosis and the Red Cross organization have also been active in educational work. The County Home Bureau is interested in nutrition work and is instructing mothers of rural communities in more healthful feeding of children.

Delaware County

Contain 29 Civil Divisions (19 townships and 10 incorporated villages), and has a total population of 45,995. Its infant mortality rate in 1921 was 64.

The only attempt at supervision of maternity and infant hygiene is being carried on by the Red Cross organization. Seventeen expectant mothers have been reached through home visiting. There are no clinics, but educational work is being done through the County Tuberculosis Committee, the Red Cross, and the various health boards. There is no public hospital in the county taking obstetrical cases. A small private hospital in Delhi accommodated a few cases during the past year.

There are public health nurses under the supervision of the Red Cross in the towns of Delhi, Deposit, Hancock and Walton who are each able to give some attention to infant work, but there are no child welfare stations or health centers in the county. Child health consultations have been held and special pamphlets on infant care are distributed by health officers.

The Home Bureau employs nutrition workers who instruct

mothers in better methods of feeding children, and women in rural homes are reached through these classes.

Dutchess County

Contains 32 Civil Divisions (two cities, 19 townships and 11 incorporated villages), and has a total population of 92,034. Its rural infant mortality rate in 1921 was 81; in Poughkeepsie it was 70, and in Beacon 75. This county is exceptional in that as many as 10 out of 32 Civil Divisions have some organized work along the lines of maternity and infant hygiene.

The Poughkeepsie Board of Health maintains a clinic for expectant mothers and gave supervision to 43 women last year. It also reaches women through home visiting. Three hospitals cared for 324 obstetrical cases last year in their wards, but they have made no provision for outside deliveries. Seven midwives are registered in the city. The milk supply is excellent, conforming in every way to the standards set by the State Commission. Three public health nurses give full time to work for infants and children of pre-school age. The salaries of five nurses are paid by the Board of Health, one by the Visiting Nurses Association, and one by the Red Cross and the Metropolitan Life Insurance Company. There are also two school nurses. Three child welfare stations had an attendance of 1,708 children last year, most of them infants. There are three Little Mothers' Leagues. Two dietitians are employed by the Tuberculosis Association and the Associated Charities. One day nursery supported by private funds admitted 5,219 children last year and six playgrounds are open to children of pre-school age.

Beacon has one public health nurse employed by the city. She is able to give some supervision to expectant mothers through home visiting in addition to her other duties. There is one hospital which cares for only a few private obstetrical cases. Two midwives are registered. There are no child welfare stations. Little Mothers' Leagues have been formed and educational work is carried on through children's health consultations, child welfare exhibits, and literature which is distributed. Three playgrounds are open to children of pre-school age.

There are five township nurses, in East Fishkill, Poughkeepsie, Red Hook, Wappinger and Washington. They give some supervision to expectant mothers through home visiting and each one

reached from 24 to 45 women last year. They do bedside nursing as well as educational work. The nurse in East Fishkill held a well baby clinic. In Poughkeepsie township 12 girls were enrolled in the Little Mothers' League and educational work was also carried on through children's consultations. Four midwives are registered in Wappinger. One playground, supported by the Dutchess Bleachery, is open to children of pre-school age.

Rhinebeck village has a district nurse supported by the Church of the Messiah and a child welfare station is maintained which had an attendance of 108 children last year. Both physicians and nurse are present and follow up work is carried on by the nurse. The Thompson Home Hospital cared for nine obstetrical cases last year. This organization attempted to carry on some prenatal work a few years ago, but discontinued it because of lack of funds. The Little Mothers' Leagues had to be given up also, though they had been very successful.

Erie County

Contains 42 Civil Divisions (two cities, 25 townships, and 15 incorporated villages), and has a total population of 598,549. Its mortality rate for infants in rural districts in 1921 was 93, in Buffalo 93, and in Lackawanna 76. In 13 out of 42 Civil Divisions some form of organized work is carried on along the lines of maternity and infant hygiene. Only two counties, Dutchess and Westchester, surpass Erie in the proportion of their territory covered.

In Buffalo supervision is given to expectant mothers through clinics and health centers with physicians and nurses in attendance. The Department of Health and the District Nursing Association are engaged in this work. Contacts are made through home visits and by literature systematically sent out by the Department of Health to all young married women. Eight hospitals providing 236 beds for obstetrical cases cared for 3,394 cases last year and more beds are needed. Through the eight dispensaries 234 women came for aid and 31 were attended in their own homes. Nursing care during confinement is provided through the District Nursing Association and the City Department of Hospitals and Dispensaries. Seventy-seven midwives are registered in Buffalo and four were prosecuted last year for practicing illegally. Sixteen nurses give full time to infant work and 20 child welfare

stations had an attendance of 17,667 children under three years of age. These welfare stations are maintained through the cooperation of the Department of Health, the Department of Hospitals and Dispensaries and the District Nursing Association, and are supported in part by public and in part by private funds. Milk is sent free to homes upon recommendation of the clinic nurses. Educational work is carried on through Little Mothers' Leagues, health consultations, exhibits, newspaper articles, etc. The school nurses have charge of the nutritional work and instruct mothers in regard to proper diets for children. Six day nurseries (five private and one public) had about 48,000 admissions last year of children under 15 years of age. Sixteen public playgrounds are open to children of pre-school age.

In Lackawanna some supervision is given to expectant mothers through home visiting by the nurse employed by the Board of Health. One hospital has 50 beds for obstetrical cases and has a very active service, many patients coming from out of town. It has no outside delivery service, but nursing care is provided through the public health nurse. The Community House also employs a full-time nurse for infant work and two infant welfare clinics are held, each with a physician and nurse in attendance. An attempt is made to see that physical defects are corrected, but the clinical facilities are insufficient. The Community House is doing educational work and it maintains a playground which is open to children of pre-school age.

Lancaster village has a public health nursing service and a clinic is held through which supervision is given to expectant mothers, in addition to home visiting. Last year fifty women were reached. Nursing care during confinement is provided for women in their own homes. One nurse gives full time to infant work and to children of pre-school age. A child welfare station with a physician also in attendance cared for 250 children last year.

Four townships, Amherst, Aurora, Newstead and Tonawanda, have public health nurses who give part of their time to infant work and to health supervision of expectant mothers. A baby welfare clinic is held every two weeks for the infants of Amherst township and cared for 45 last year. The physician's services are volunteered. Thirty-one expectant mothers were given supervision through home visits made by the nurse. There is also a child welfare station in Kenmore which had an attendance of 25

babies a week. In Aurora the Red Cross and Metropolitan Life Insurance Company contribute jointly towards the expense of the nurse. In Newstead the expense is met by public funds. In Orchard Park three baby clinics were held by the Red Cross with the local physicians giving their services and a nurse from the Buffalo chapter whose expenses were met by the local branch. Some educational work is done through Red Cross home nursing classes.

Essex County

Contains 27 Civil Divisions (18 townships and nine incorporated villages), and has a total population of 35,466. Its infant mortality rate for 1921 was 80.

There is no organized supervision for expectant mothers in the county. In Keene Valley the Community Home employs a nurse who does general public health work and runs a clinic. Elizabethtown had a public health nurse for three months. Lake Placid and Mineville have school nurses, and Ticonderoga formerly had a village nurse, but in none of these places is any special work being done for infants and children of pre-school age.

There are two hospitals in the county, but neither of them take obstetrical cases, nor have they beds for children.

Franklin County

Contains 25 Civil Divisions (19 townships, five incorporated villages and one Indian Reservation), and has a total population of 47,808. Its infant mortality rate in 1921 was 110.

There is practically no supervision of maternity and infant hygiene in the county. The Board of Health and the Metropolitan Life Insurance Company are both doing some educational work in the village of Malone and insurance collectors persuade expectant mothers to take advantage of this instruction. There are no public health nurses for infant work. There is a village nurse in Malone and a school nurse at Saranac Lake, but they are occupied with other duties. One hospital in Malone and one in Saranac Lake take obstetrical cases. Twelve beds are provided.

Fulton County

Contains 15 Civil Divisions (two cities, 10 townships and three incorporated villages), and has a total population of 45,769.

Its mortality rate for infants in rural districts in 1921 was 87, in Gloversville 62 and in Johnstown 65.

There is practically no organized supervision for maternity and infant hygiene excepting in the two cities of Johnstown and Gloversville, where clinics are held and home visits made. In Johnstown this work is under the direction of the Red Cross and about 25 women were reached last year. In Gloversville it is under the direction of the Mothers' League.

The one hospital in the county, located in Gloversville, takes obstetrical cases but more beds are needed, as there are only five at present available for these cases.

The Red Cross nurse in the city of Johnstown is employed full time for children of pre-school age, and 640 children under five years of age attended the child welfare station last year. In Gloversville the nurse in charge of this work is employed by the Mothers' League and about 800 children attended their child welfare station. The day nursery in Gloversville has an attendance of about 6,000 children annually. There is also a Little Mothers' League in this city.

The county nurse employed by the County Tuberculosis Association distributes some educational literature, but her time is entirely taken up with the school work and other duties.

Genessee County

Contains 20 Civil Divisions (one city, 13 townships and six incorporated villages), and has a total population of 39,843. Its mortality rate for infants in 1921 was 100, and in Batavia 111.

About one-third of the inhabitants of the county live in Batavia and one-eighth in LeRoy, the rest in eleven small villages, six of which are incorporated. The only organized work for maternity and infant hygiene is found in the city of Batavia and in the village of LeRoy.

Care is given to expectant mothers in Batavia through a clinic which was attended by 52 women last year. Two hospitals in Batavia provide 11 beds for obstetrical cases and 157 women were cared for during the last year. A full-time nurse is employed by the Infant Welfare Association and about 9 per cent. of the children under two years of age are reached. There was an attendance of 250 children at the child welfare station during the past year.

Methods of baby care are popularized through child welfare exhibits and distributing pamphlets.

In LeRoy health supervision to expectant mothers is given through home visiting by the Red Cross nurse. The child welfare station admits infants and children of both school and pre-school age. Two hundred children were in attendance last year. No special educational work is being done in prenatal care.

Greene County

Contains 19 Civil Divisions (14 townships and five incorporated villages), and has a total population of 30,191. Its infant mortality rate for the year of 1921 was 79.

Supervision of maternity and infant hygiene is being organized in the village of Catskill by the Red Cross nurse. Thirteen expectant mothers have been reached and 49 children under two years of age have attended the child welfare station during the past year. In the towns of Tannersville and Hunter the Red Cross nurse is also giving health supervision to expectant mothers. Ten were reached in Tannersville and 20 in Hunter.

Three school nurses in these three villages are able to give some attention to infants and children of pre-school age, averaging eight hours a week. Child health consultations and child welfare exhibits have been held in Catskill.

There are no hospitals in the county, but through the Red Cross there is provision for nursing care of women at confinement in their homes. The maternity home in Catskill cared for four cases last year.

Hamilton County

Contains nine Civil Divisions (nine townships), and has a total population of 4,491. Its infant mortality rate in 1921 was 164.

No work is being carried on in the county which is primarily directed towards lessening the maternal deaths or lowering the infant mortality rate. There is no maternity hospital and no health supervision is given to expectant mothers. There are no public health nurses in the county. The population is scattered and the number of children is small. Only 55 babies were born in 1921 but a larger proportion of its infants died than in any other county of the state.

Herkimer County

Contains 31 Civil Divisions (one city, 19 townships and 11 incorporated villages), and has a total population of 60,229. Its mortality rate for infants in rural districts in 1921 was 67, and in Little Falls 71.

Organized supervision of maternity and infant hygiene is confined to Little Falls and the four larger villages, Ilion, Mohawk, Frankfort and Herkimer, where public health nurses are employed. In Frankfort and Herkimer supervision is given by visiting nurses, but in Little Falls, Mohawk and Ilion there are health centers or clinics where prenatal supervision is provided.

Both in Little Falls and Ilion there are located hospitals which take obstetrical cases but the hospital in Herkimer takes only cases with complications.

Child welfare stations with physicians and nurses in attendance are maintained in Little Falls, Mohawk and Ilion and are supported in part by public funds and in part by the local Red Cross organizations. In Little Falls there is a day nursery supported by an industrial plant.

Jefferson County

Contains 42 Civil Divisions (one city, 22 townships and 19 incorporated villages), and has a total population of 88,036. Its mortality rate for infants in rural districts in 1921 was 78, and in Watertown 109.

Educational work for prenatal and infant care is being carried on to some extent in 30 of the 42 Civil Divisions. In almost every case this is done through home nursing classes conducted by the Red Cross or by a school nurse.

Two hospitals in Watertown provide 31 beds for obstetrical cases and in the village of Theresa there is a small hospital, supported by the community, which takes some such cases. Neither has an outside delivery service.

There is one public health nurse in Watertown giving full time to infant work. A second nurse gives half time. These nurses also supervise work for children of pre-school age. Under the Health Department and the Visiting Nurses Association a child welfare station is run. The attendance last year was 284 children under six years of age, the majority being infants. A pre-

natal clinic is also maintained and supervision was given to 59 expectant mothers.

Carthage and Hounsfield are also active to some extent in work for infants. In Carthage a nurse gives part time and in Hounsfield there is a baby clinic.

The milk supply in Watertown conforms to the standard recommended by the Milk Commission. Throughout the balance of the county milk is sold which is below this standard.

Lewis County

Has 26 Civil Divisions (18 townships and eight incorporated villages) and has a total population of 25,947. Its infant mortality rate in 1921 was 61.

There is no prenatal work being done in this county except in the town of Croghan, where a public health nurse is employed by the Red Cross. This nurse visits in the homes, but little instruction is given expectant mothers, except by means of pamphlets distributed by the State Department of Health. There is no hospital in the county to care for obstetrical cases.

There are only two public health nurses in the entire county. Their work is confined chiefly to inspection in the schools and follow up work with school children. Practically nothing is being done for children of pre-school age.

A little educational work was done in 1921 through children's health consultations in Lowville, Croghan, Harrisburg, Point Leyden, Martinsburg and Castorland. Over 400 children were examined and follow-up work was carried on by the public health nurses.

The number of physicians is insufficient to care for all rural calls.

Livingston County

Contains 26 Civil Divisions (17 townships and nine incorporated villages), and has a total population of 38,752. Its mortality rate for infants in rural districts in 1921 was 77.

The nursing associations in the villages of Geneseo and Mount Morris employ public health nurses who are able to give some supervision to expectant mothers through home visiting and in Geneseo through a clinic. Dansville employs a public health nurse who also by home visiting is able to give some supervision

to maternity and infant hygiene. In the town of York, the Retsof Mining Company, the School District No. 2, the local health board and the Red Cross employ a nurse. In Mount Morris about 80 women have been reached during the past year, in Dansville 50, and in York about 70. The State Department of Health and the County Tuberculosis Association are both active in distributing printed matter giving simple instructions to expectant mothers. The County Tuberculosis Association has adopted an extensive program for the coming year and special work in maternity and infant hygiene is included.

A new hospital has just been completed in Dansville which has five beds for obstetrical cases. There are two midwives in the county who are licensed. Sterile supplies can be obtained at small cost. Grade B raw milk is used throughout the county.

The public health nurse in York gives most of her time to infant work. The other three nurses in the county can devote only a few hours a week to this special field. There are three child welfare stations located in Dansville, Geneseo and the town of York.

The educational work done in the town of York is quite extensive. Four Little Mothers' Leagues have been graduated, and there have been classes in home nursing besides child welfare exhibits and child health consultations. In the townships of West Sparta, Springwater, Sparta, Portage and Ossian Child Consultation Clinics were held by the State Department of Health in the month of May, 1920.

Madison County

Contains 26 Civil Divisions (one city, 15 townships and 10 incorporated villages), and has a total population of 41,742. Its mortality rate for infants in rural districts in 1921 was 82, and in the city of Oneida 58.

There is practically no work being done in the county for maternal and infant hygiene. The Mothers' Club in Earlville village distributes simple printed instructions. In Canastota a school nurse takes charge of similar work. There are no clinics throughout the county. Four hospitals care for obstetrical cases, three of which are located in Oneida. The fourth, in Canastota, cared for 15 cases last year.

Oneida and Canastota have school nurses. Oneida has or-

ganized a Little Mothers' League under the school nurse. There is also a nurse employed by the Federated Club who does bedside nursing. In Canastota the nurse does what infant work she can in addition to her school duties. One clinic for children of pre-school age was held in the spring under the auspices of the State Department of Health. There is one playground in Canastota supported by private funds which is open to children under five years of age. The only supervision given is by older girls.

Throughout the rest of the county nothing is being done except a certain amount of educational work conducted by the County Tuberculosis Committee, which employs two public health nurses. The committee is hoping to raise sufficient funds for a nutrition worker.

Monroe County

Contains 30 Civil Divisions (one city, 19 townships and 10 incorporated villages), and has a total population of 330,920. Its mortality rate for infants in rural districts in 1921 was 66, and in Rochester 80.

The city of Rochester has begun some excellent work for maternity and infant hygiene through its Public Health Nursing Association. Five health centers have been opened recently for prenatal work and for infants and children of pre-school age. These are supported by the community chest and a physician is employed in one of them. Women are also reached in their homes through nurses and social workers. Twenty-eight nurses give full time to work with infants and children of pre-school age, and a number of private organizations as well as the Board of Health contribute towards their expenses. Eight hospitals provide 124 beds for obstetrical cases, but they have no outside delivery services. Cases were reported from Rochester last year in which no physician could be obtained. Provision for nursing care during confinement is made through the Public Health Nursing Association. There is one maternity home which is not licensed nor supervised by the health authorities. Midwives are still practicing without being licensed and registered and none were prosecuted last year for practicing illegally. Excellent milk can be obtained in the city, but not all is of this quality. Dip milk is still being sold. Two milk stations were started by the Rotary Club and taken over by the Public Health Nursing Association. Educa-

tional work is being done through Little Mothers' Leagues and a few child welfare exhibits have been held. Three nutrition workers are employed by the Public Health Nursing Association. Two day nurseries are supported by the community chest and care for children from six months to ten years of age at a charge of five cents a day.

Outside of Rochester five townships have public health nurses, Brighton, Nondequoit, Perrington, Sweden and Webster. They have many and varied duties, but are able to give some attention to infants and to expectant mothers through home visiting. The Red Cross and the boards of health share the expense. Educational work has been carried on throughout the county by children's health consultations, newspaper articles, pamphlets distributed and lectures with moving pictures and slides. The Tuberculosis Association has been the most active county organization in this field and it employs a nutrition worker. Little Mothers' Leagues have been formed in Wheatland, Pairua, Brighton, Nondequoit, Sweden, Webster, and in the villages of East Rochester and Fairport.

Montgomery County

Contains 20 civil divisions (one city, ten townships and nine incorporated villages), and has a total population of 64,924. Its infant mortality rate in rural districts in 1921 was 62, and in Amsterdam 87.

Amsterdam has two hospitals with 20 beds for obstetrical cases. There are five midwives registered. A certain amount of care is given expectant mothers in the home and printed matter is distributed by the Department of Health, which also employs a part-time nurse for infant work and work with children of preschool age. A second nurse is employed for this work by the Metropolitan Life Insurance Company. One clinic for children is held under the supervision of the Health Department. A physician and two nurses attend, and the nurses carry on the follow-up work. Educational work is also done by the Health Department by means of child welfare exhibits and pamphlets and local papers. There is one day nursery caring for children under five years of age. Milk here is up to the standard of the State Commission, though this is not true in some of the rural districts.

Outside of Amsterdam there is no maternal or infant hygiene

work in the county, except that of one county tuberculosis nurse from the Amsterdam Sanitorium, and three school nurses. The work of the tuberculosis nurse is confined to tuberculous patients, and care is given both in clinics and in the homes. Printed matter is distributed by health officers and public health classes are held.

There are no infant nurses and no child welfare stations throughout the rest of the county, but a Public Health League supported by the Women's Club is doing educational work through local newspapers and by means of lectures.

Nassau County

Contains 23 Civil Divisions (one city, three townships and 19 incorporated villages), and has a total population of 104,720. Its mortality rate for infants in rural districts in 1921 was 70, and in Glen Cove 53.

Some excellent work is being carried on along the lines of maternity and infant hygiene in a number of townships. Health centers have been established in Glen Cove, Lawrence, Roslyn Heights, Great Neck, Saddle Rock, Port Washington, Kensington, Westbury and Locust Valley, where advice is given to expectant mothers and clinics are held for infants and children of pre-school age. Five hospitals take obstetrical cases, two in Hempstead, one in Roslyn Heights, one in Far Rockaway and the county hospital in Mineola. At least 21 midwives are registered in the county. Three were prosecuted in Glen Cove the year before last for practicing illegally.

A public health nurse is employed in Glen Cove and in each of the following villages by a local visiting nurses' association or health league which raises its funds for the most part through private subscriptions: Oyster Bay, Port Washington, Lawrence, Roslyn Heights, Westbury, Great Neck, Manhasset and Locust Valley. These nurses do all forms of public health nursing, including bedside care, but they devote part of their time to infant work. They are in attendance at the child welfare stations during the hours when they are open, and they give some supervision to children and expectant mothers also through home visits. All of these villages have child welfare stations or clinics, except Manhasset, which has held some baby conferences. The Oyster Bay station had an attendance of 447 children last year.

Little Mothers' Leagues have been formed in Glen Cove, Manhasset, Sea Cliff, Oyster Bay, Lawrence, Roslyn Heights, Locust Valley and Port Washington. In the latter place 200 girls have joined such leagues during the last four years and received instruction in personal hygiene and methods of baby care.

Excellent milk can be obtained throughout the county, but milk is also being sold which is beneath the standard recommended by the State Milk Commission. Glen Cove and Oyster Bay have milk stations which supply good milk at low cost, or free, for children needing it.

A day nursery in Great Neck cares for 25 children annually and one playground there and two in Glen Cove are open to children of pre-school age. Lawrence and Roslyn Heights also have playgrounds for small children with supervision by trained workers, supported by private funds. The one in Roslyn Heights, which is supported by the community center, would welcome volunteer assistants. Such assistance could also be used at Glen Cove. The Home Bureau and the Red Cross have given classes in dietetics in several villages.

Niagara County

Contains 21 Civil Divisions (three cities, 12 townships and six incorporated villages), and has a total population of 104,500. Its mortality rate for infants in rural districts in 1921 was 76, in Niagara Falls 95, in Lockport 93, and in North Tonawanda 90.

The only organized supervision for maternity hygiene in the county is carried on in Niagara Falls. A prenatal clinic is held and expectant mothers are also visited in their homes.

Two hospitals in Niagara Falls take obstetrical cases. About 268 cases were cared for during the past year. There are seven midwives registered in Niagara Falls and three in North Tonawanda.

Three public health nurses in Niagara Falls give full time to infant work, and one in North Tonawanda. There are four child welfare stations located in Niagara Falls with 2,545 infants from birth to two years of age in attendance last year. There are two child welfare stations located in North Tonawanda, with an attendance of 500 children. The Child Welfare Committee carries on the follow up work.

Educational work in child welfare is being carried on in the

towns of Lewiston, Wilson and Middleport through the local health officers.

There are no day nurseries in the county, and the only playgrounds open to children under five years of age are those of the schools in Niagara Falls.

Oneida County

Contains 49 Civil Divisions (two cities, 26 townships, 21 incorporated villages), and has a total population of 169,748. Its rural infant mortality rate in 1921 was 92. In the city of Utica the rate was 88 and in the city of Rome 71. The only provisions for prenatal, maternal and infant care in the county are in Utica, Rome, Clinton and Clark Mills.

Clinics for prenatal care are available in the city of Utica. General educational supervision is given by the child welfare nurses in Rome, Clark Mills and Clinton through home visiting and through their child welfare stations. There are four hospitals in the city of Utica, one giving free service, and about 200 obstetrical cases were cared for during the year. There are three hospitals in Rome taking obstetrical cases. Licensed midwives are located in both cities; about 30 are registered in Utica and seven in Rome.

The Baby Welfare Organization has four stations in Utica, and the city with the Junior League maintains two day nurseries, with an average attendance of 80 children. Rome has the services of one child welfare nurse, and also one child welfare station.

The only organized work in the rural sections is at Clinton and Clark Mills. A clinic for children of pre-school age is held in each village monthly.

Onondaga County

Contains 35 Civil Divisions (one city, 19 townships and 15 incorporated villages), and has a total population of 223,337 (Syracuse 171,647). Its mortality rate for infants in rural districts in 1921 was 74 and in Syracuse 82.

The only organized supervision of maternity and infant hygiene in the county is confined to the city of Syracuse and the village of Jamesville. Three years ago the Solvay Guild held clinics in Solvay. It was stated that this work was discontinued because it was impossible to secure a woman physician.

About 350 expectant mothers were reached during the past year through the clinics of Syracuse and 24 in Jamesville. Eighteen expectant mothers were reached through home visiting in the town of Skaneateles.

There are eight hospitals in Syracuse which take obstetrical cases, and 3,060 cases were cared for during the past year. Ten midwives were registered. One nurse is employed in Solvay and six in Syracuse for children of pre-school age. In Solvay about 500 infants were in attendance at the child welfare station. In Syracuse there were 3,044 children in attendance, largely infants. In two of the child welfare stations children are in attendance up to six years of age; in the other four the children are admitted from birth to two years of age. There is a Little Mothers' League organized by the Child Welfare Committee. A day nursery in Syracuse cares for about 30 children annually from two to eight years of age at a charge of 10 cents a day.

The nutrition workers of the Home Bureau co-operate in teaching nutrition and instructing mothers in feeding children. The Skaneateles Woman's Village Improvement Association is active in health education, as well as some of the health officers in the various communities.

ONTARIO COUNTY

Contains 26 Civil Divisions (two cities, 16 townships and eight incorporated villages), and has a total population of 54,242. Its mortality rate for infants in rural districts in 1921 was 68, in Canandagua 99, and in Geneva 91.

No supervision is given expectant mothers, and no work done along the lines of maternal and infant hygiene outside the cities of Canandagua and Geneva, where arrangements are made for home visiting. In Canandagua this is supervised by the Red Cross and in Geneva by the Health Department and the Metropolitan Life Insurance Company. In Geneva a clinic has recently been opened by the Woman's Club and a public health nurse has been put in charge. One hospital in Geneva takes obstetrical cases. No deliveries are made in the home, but eleven beds are provided in the hospital and 159 women were cared for last year. In both cities the milk supply is good, meeting all requirements of the State Commission.

Canandagua has one public health nurse supervising all children of pre-school age. She is employed by the Red Cross, which organization also supports a child welfare station. Follow-up work is done by the nurse and educational work carried on through children's health consultations, newspapers, distribution of pamphlets, exhibits and lectures. One playground in the city admits children under five years of age.

The Red Cross in Geneva first paid a public health nurse, who was afterward taken over by the city. Part of her time is devoted to infants and young children. A child welfare station and clinics are held in the city under the County Tuberculosis Committee and the City Health Department. Last year 200 children attended. Follow-up work is done by the public health nurse. Recently a Little Mothers' League has been organized and further educational work is carried on by the Woman's Club. One day nursery cares annually for 40 children under 12 years of age. There are four playgrounds open to children under five. Paid workers and teachers are in charge.

There is one nurse employed by the County Board of Supervisors for public health work. Because of the size of her territory she is able to reach only the sick and cannot devote her time to infant work and work with children of pre-school age. One playground in East Bloomfield is open to children under five. In Phelps the school nurse occasionally does some infant work.

Orange County

Contains 33 Civil Divisions (three cities, 20 townships and 10 incorporated villages), and has a total population of 124,863. Its infant mortality rate in 1921 was 82 in rural districts, in Newburg 77, in Middletown 94, and in Port Jervis 115.

There is one prenatal clinic in the county. This is located in the city of Newburg and 240 expectant mothers were reached last year either through this clinic or through home visiting. The city of Port Jervis and the towns of Highlands, Montgomery, Cornwall, Chester, Goshen and Warwick provide some supervision through home visiting by their public health nurses. Twenty expectant mothers were visited in the village of Goshen during the past year.

Seven hospitals in the county take obstetrical cases, one in Newburg, two in Middletown, two in Port Jervis, one in Goshen

and one in Warwick. One hundred and sixty-six cases received attention in Newburg last year. Five midwives are registered, four in Newburg and one in Goshen.

There are public health nurses giving attention to the care of infants and children of pre-school age in Newburg, Port Jervis, Chester, Warwick, Highlands, Montgomery and Goshen. Newburg employs two child welfare nurses and has two Child Welfare Stations; an additional one is open during the summer months. Children are admitted up to school age and about 600 were in attendance last year. There are also child welfare stations in Port Jervis and Warwick. Day nurseries are organized in Newburg and Middletown with an attendance of 3,000 and 4,000 children, respectively.

Education in baby care is being promoted in Newburg, Port Jervis, Highlands, Tuxedo, Warwick, Walden and Goshen through the Red Cross, the visiting nurses, the Anti-Tuberculosis Nurse, and the Metropolitan Life Insurance Company. In Newburg the Associated Charities employs a nutrition worker who makes visits and teaches methods of feeding children. The school nurse also gives instructions regarding the value and preparation of food.

Orleans County

Contains 14 civil divisions (ten townships, four incorporated villages), and has a total population of 33,341. Its infant mortality rate in 1921 was 74.

No prenatal work has been attempted in the county except in Medina Village, where instructions are given in the homes by a nurse employed by the Public Health Committee in Medina, and two adjacent townships. In Albion there is a hospital which takes obstetrical cases but no provision is made for outside deliveries.

The community nurse in Medina has also been active in child welfare work. The village is too small to support a permanent clinic.

There is one dietitian employed by the Home Bureau who has covered the towns of Albion, Caines, Carlton, Yates, Clarendon, Murray, Barre and Kendall. Some educational work is done by the County Tuberculosis Nurse.

Oswego County

Contains 34 civil divisions (two cities, 22 townships and

10 incorporated villages), and has a total population of 72,235. Its mortality rate for infants in rural districts in 1921 was 78, in Fulton 71, and in Oswego 103.

Prenatal work is carried on in both Oswego and Fulton cities and 337 expectant mothers were reached in Oswego through the health center and home visiting by the public health nurse.

There is a hospital in each city which takes obstetrical cases, but the total number of beds available is only six. Two midwives are registered in Oswego.

A child welfare nurse in Fulton gives entire time to infant work. The public health nurse in Oswego also cares for children of pre-school age. The child welfare station in Fulton only admits infants, that is, children up to two years of age. The station in Oswego admits children up to six years of age, although the attendance is largely composed of infants. The total number during the last year was 794.

There are Little Mothers' Leagues in both cities. Educational work is done by the child welfare nurse through distribution of pamphlets and exhibits in the city of Fulton.

There are no nutrition workers in the county and no day nurseries.

Otsego County

Contains 35 civil divisions (one city, 24 townships and 10 incorporated villages), and has a total population of 48,534. Its infant mortality rate for 1921 was 71 in rural districts, and 72 for the city of Oneonta.

There is no organized supervision of maternity hygiene in the county. Two hospitals provide two beds for obstetrical cases, one in Oneonta and one in Cooperstown.

The Red Cross public health nurse in Oneonta is able to give some attention to infant work and to that of pre-school children. She gets in touch with newly born infants through her work of delivering birth certificates. There is a child welfare station with a doctor and nurse in charge and 220 children from one to seven years of age were in attendance during the last year. A Little Mothers' League is organized in the village of Morris.

The executive of the County Tuberculosis Committee has been active in educational work.

PUTNAM COUNTY

Contains nine civil divisions (six townships, three incorporated villages), and has a total population of 15,307. Its infant mortality rate for the year of 1921 was 78.

There is no organized supervision of maternity hygiene in the county. The doctors and nurses cooperate in sending out the pamphlets provided by the State Department of Health. The Red Cross and State Charities Aid employ an agent for dependent children who is doing educational work in this other field, also a District Nursing Association is being formed in the town of Carmel and supervision in maternity and infant hygiene will be inaugurated within the next six months. A hospital is being opened in Cold Spring and there will be a clinic in connection with it.

RENSSELAER COUNTY

Contains 21 civil divisions (two cities, 14 townships, five incorporated villages), and has a total population of 122,698. Its rural infant mortality rate in 1921 was 71, 93 in Troy and 103 in Rensselaer.

Practically no work is being done in this county for maternal and infant hygiene except in Troy, where supervision is given expectant mothers in clinics and in the homes by the Health Department and Maternity Center. Here also are four hospitals which provide 42 beds for obstetrical cases. Seven midwives are registered and licensed. There are two full time public health nurses, employed by the Department of Health, who care for infants and children of pre-school age. This department in cooperation with the Babies' Milk Station, Day Home and the County Tuberculosis Association, conducts four child welfare stations for children of all ages. Four nurses and a physician are employed and follow up work is done by the former. Little Mothers' Leagues, child welfare exhibits, children's health consultations and printed matter are used to promote educational health work. Two dietitions are employed by the City Health Department, and there are two day nurseries caring for children from infancy to twelve years of age. One hundred and ninety-six children are taken care of annually, and small charges are made where the parents can afford it. Eight playgrounds admit children under five years of age, but these are not sufficient to meet the

needs of the city. Milk of all grades is used, some being below the standard set by the State Commission.

Clinics have been held occasionally under the Tuberculosis Committee in most townships, one nurse and a secretary are employed by this committee and they give some time to infant work.

ROCKLAND COUNTY

Contains 15 civil divisions (five townships and ten incorporated villages), and has a total population of 53,130. Its mortality rate for infants in 1921 was 54.

Provision for care of expectant mothers is made in many of the towns and villages of this county and a prenatal clinic is held in Upper Nyack. Twenty-five expectant mothers were reached in Ramapo township, and home visiting is also done by the nurses in the villages of Nyack, Upper Nyack, South Nyack, and Grand-View-on-Hudson. No organized supervision is being given to expectant mothers in the villages of Haverstraw, Stony Point and Orange.

The county hospital in Suffern cared for 81 obstetrical cases during the past year. Six midwives are registered. None have been prosecuted so far, but one is reported as undesirable.

The township of Ramapo includes three incorporated villages and in this district there are three public health nurses giving much time to infant work and children of pre-school age. In the township of Clarkestown, Haverstraw, and Grand-View-on-Hudson village the nurse gives some attention to this field of work. Baby clinics are held during two months of the summer in the villages of Suffern, Hillburn and Ramapo. Child welfare stations which are located in Upper Nyack, South Nyack, Nyack and Grand-View-on-Hudson admit children up to six years of age. In Spring Valley the school nurse in cooperation with the Parent Teachers Association has been carrying on nutrition work among the children of kindergarten age.

ST. LAWRENCE COUNTY

Contains 46 civil divisions (one city, 32 towns and 13 incorporated villages), and has a total population of 90,291. Its infant mortality rate for rural sections was 86 and for the city of Ogdensburg 150.

There is no organized prenatal work in the county. Occasional supervision is given to women in the towns of Gouverneur, Mas-

sena, Potsdam and in Gouverneur village. In Ogdensburg the Metropolitan Life Insurance Company does some work which is limited to policy holders. Occasional clinics are held in the village of Gouverneur. An effort by the State Department of Health to inaugurate prenatal work in Ogdensburg failed because of lack of public support. One hospital in Ogdensburg takes obstetrical cases. Maternity homes are found in Ogdensburg, Gouverneur, Massena and Potsdam. Midwives are also registered in each of these places.

Public health nurses are employed by the boards of health in Gouverneur, Massena, and Potsdam and by the Metropolitan Life Insurance Company in Ogdensburg. There is one child welfare station in Massena which takes children up to six years of age. This is under the supervision of the public health nurse and is adequately equipped.

In Ogdensburg, Potsdam and Massena some milk below standard is sold while that of Gouverneur conforms to the standards of the State Milk Commission.

Saratoga County

Contains 29 civil divisions (two cities, 19 townships and eight incorporated villages), and has a total population of 62,521. Its mortality rate for infants in rural districts in 1921 was 92, in Saratoga Springs 55, and Mechanicville 69.

There is only one place in this county where supervision is given to expectant mothers, and that is the city of Saratoga Springs. No prenatal clinics are held but the city nurse visits women in their homes. The Home Bureau in cooperation with the State Department of Health has conducted health lectures in the county with special attention to prenatal care. Their total attendance was 1,240 during 1921, and 19 communities were reached.

One hospital in Saratoga Springs cares for obstetrical cases. There are six midwives registered in Mechanicville, four in Saratoga Springs, and one in South Glens Falls. There is one milk station in South Glens Falls.

Mechanicville and Saratoga Springs each employs a full time public health nurse, but no attention is given to infants and preschool children. In Ballston Spa village there is a part time public health nurse supported by the Red Cross and public schools. Only

incidental attention can be given to small children. There is no county public health nurse. The Metropolitan Life Insurance Company maintains a nurse who does some work in rural sections, but her attention is given mainly to tuberculosis work. The company conducts a health exhibit tent at the county fair and ran a day nursery in connection with it this year, giving information to mothers about the care of children.

There are no child welfare stations, clinics or health centers in the county. Milk which is below the standard recommended by the State Commission is sold throughout the county.

Schenectady County

Contains seven civil divisions (one city, five townships and one incorporated village), and has a total population of 118,441. Its rural infant mortality rate in 1921 was 67, and in the city of Schenectady 64.

The city of Schenectady and the town of Rotterdam are giving instructions and supervision to expectant mothers in clinics and in the homes. The Health Department of Schenectady supplies the nurses for that city and 221 women were reached last year. In Rotterdam this work is under the direction of the Public Health Nursing Association and further educational work is done by the Metropolitan Life Insurance Company and the Health Department.

The Rotterdam hospital which accommodates fifteen maternity cases cared for 230 women last year, and there are two maternity homes. Nursing care at confinement is provided in the homes by the Public Health Nursing Association. Twenty midwives are registered and licensed by the commissioner of health. One was prosecuted for practicing illegally last year. There is also a hospital in Schenectady which takes obstetrical cases. There are twenty-five beds for such cases. The city has three maternity homes.

Schenectady has five full time nurses and four additional nurses during the summer months under the Visiting Nurses Association and life insurance companies to care for infants and children of pre-school age. Twenty-three hundred and seventy-eight children —the majority being infants—were cared for last year in the four child welfare stations which are under the Health Department and supervised by physicians and nurses. One full time nurse

under the Public Health Nursing Association in Rotterdam has charge of infant work and work with children of pre-school age. The Public Health Nursing Association also conducts a child welfare station where children of all ages are admitted. Educational work is being done, too, through Little Mothers' Leagues, children's health consultations, exhibits and lectures in both cities.

In Rotterdam, nutrition classes are held by the Red Cross and this work is being organized in Schenectady. In the latter, 27 day nurseries cared for 5,162 children from three months to eight years of age last year. Nominal sums are charged by the nurseries for the care given if the parent or parents are working.

A public health nurse was provided up to September 1st by the Red Cross for Glenville and Scotia and in other districts maternal and infant hygiene work is under consideration.

Ten playgrounds in Schenectady admit children under school age and their play is supervised by a nurse and her assistants.

Schoharie County

Contains 22 civil divisions (16 townships and six incorporated villages), and has a total population of 23,005. Its mortality rate for infants in 1921 was 58.

In Schoharie the Red Cross Home Service does a certain amount of visiting in the homes and pamphlets are sent out through the Free Library, but aside from this practically no attempt has been made to inaugurate work along the lines of maternal and infant hygiene and there is no maternity home or hospital taking obstetrical cases in the county. In the towns of Cobbleskill and Esperance there is an insufficient number of physicians for rural cases. Literature provided by the State Department of Health is distributed to expectant mothers and supervision is occasionally given by the local health officers.

The Red Cross employs one public health nurse for the County who supervises infant work and work with children of pre-school age and the Metropolitan Life Insurance Company has a worker in Cobbleskill.

Child welfare stations are maintained in Schoharie and Cobbleskill. In the latter town about 40 children attended last year. Further instruction was given in these places by the Health Department and the Red Cross. In Jefferson reading courses are

conducted under the auspices of Cornell University and instruction is given in this way in dietetics.

Schuyler County

Contains 12 civil divisions (eight townships and four incorporated villages), and has a total population of 13,957. Its infant mortality rate in 1921 was 41.

There is no activity along the lines of maternal and infant hygiene throughout the county. At one time an attempt was made by the Red Cross to inaugurate this work in Montour Falls, Watkins, and the rural sections but the nurse was withdrawn after a few months. One hospital in the county providing eight beds for obstetrical cases has recently been opened. It makes no provision for outside deliveries.

In both Montour Falls and Watkins milk is sold which is below the standard of quality recommended by the State Commission.

Some educational work is done by the board of health in Watkins and Montour Falls and through the Camp Fire Girls in Watkins.

Seneca County

Contains 14 civil divisions (10 townships and four incorporated villages), and has a total population of 25,249. Its infant mortality rate in 1921 was 91.

No educational work is being done along the line of maternal and infant hygiene in the county and no clinics are held. Hospitals in Waterloo and Seneca Falls provide twelve beds for obstetrical cases, but the service is not free and there is no provision for outside deliveries in either place.

There are no nurses in Seneca County for infant work and work with children of pre-school age, but one public health nurse is employed by the Tuberculosis Committee and in Waterloo yearly clinics are held. Clinics are also held in Ovid, where six children attended last year. Funds for this work are raised by the sale of Red Cross Seals.

Waterloo supports a day nursery during the canning season for children up to ten years. About twelve were cared for last year and a nominal charge made to the parents.

Steuben County

Contains 46 civil divisions (two cities, 32 townships and 12

incorporated villages), and has a total population of 83,755 Its mortality rate for infants in rural districts in 1921 was 63, in Corning 56, and in Hornell 89.

The only organized activities in maternal and infant hygiene are in Hornell and Corning. Health supervision is given in Corning through home visiting, and in Hornell both through home visiting and a clinic. Twenty expectant mothers were reached in the city of Hornell during the past year. In six townships there is no resident physician.

There are two hospitals in Hornell which take obstetrical cases and 320 cases were cared for during the last year. In the city of Corning there is one hospital taking maternity cases.

There is a public health nurse in Hornell and one in Corning, both of whom are giving attention to infants and children of pre-school age. Both are employed by the local Departments of Health. The health center in Hornell has both infants and children of pre-school age in attendance. There is a day nursery in Hornell with 54 children cared for annually and the Childrens Home is used when needed. Thirty-four children are cared for there annually.

The Metropolitan Life Insurance Company in both cities is active in educational work. The Corning Glass Works is cooperating in this work in Corning. Health education throughout the county is being carried on through the County Tuberculosis Committee.

Suffolk County

Contains 23 civil divisions (11 townships, 12 incorporated villages), and has a population of 109,682. The infant mortality rate in 1921 was 61.

Health supervision is provided in the southern half of the county for infants and expectant mothers through six visiting nurses who are employed by and under the direction of the South Suffolk County Chapter of the Red Cross. There are no prenatal clinics. About 150 expectant mothers were reached in the territory of the Red Cross during eight months.

There are six hospitals in the county which take obstetrical cases. The county hospital is at Riverhead and the others are private ones. There is a maternity home at West Hampton Beach.

Child welfare stations are located in four communities, Baby-

lon, Patchogue, Islip and Amityville. In East Hampton the Neighborhood House has started a child welfare station which has only older children in attendance, and is under the direction of a social worker. The visiting nurse carries on the follow-up work.

The Red Cross is not active in infant work in the northern part of the county. Huntington has a public health nurse who gives supervision to expectant mothers and does infant work. Smithtown has authorized the appointment of a nurse for infant work but has not secured her yet. There are a number of school nurses in the county but they give only incidental attention to infants and children of pre-school age.

SULLIVAN COUNTY

Contains 19 civil divisions (15 townships and four incorporated villages), and has a total population of 34,904. Its infant mortality rate in 1921 was 71.

There are no prenatal clinics nor child welfare stations in the county. In Liberty printed matter on these subjects has been distributed by the Council of Jewish Women which also has done general educational work in all districts except Lumberland, Highland, Wurtsboro, Tusten, Fremont and Neversink. The Home Bureau is active in general health work in Liberty, Delaware, Momakating, and Fallsburg, where child welfare exhibits have been held and lectures given.

There is one dietition for the county employed by the Home Bureau. Classes were held last year in Callicon, Fallsburgh, Thompson and Liberty.

There are no hospitals which admit obstetrical cases. In a few sections a shortage of physicians has been reported for rural calls.

TIOGA COUNTY

Contains 15 civil divisions (nine townships and six incorporated villages), and has a total population of 25,549. Its infant mortality rate for 1921 was 62.

There is no organized work for maternity and infant hygiene in the county, although some educational work is done through the representative of the State Charities Aid Association. The school nurse for the township of Barton sometimes gives advice to expectant mothers in the village of Waverly.

There are no hospitals in the county. Single clinics for chil-

dren have been held in Waverly and Owego where mental and physical examinations were made. These were organized by the county agent for dependent children in cooperation with the local authorities.

Tompkins County

Contains 16 civil divisions (one city, nine townships and six villages), and has a total population of 36,535. Its infant mortality rate for 1921 was 78 in the rural area and 67 in Ithaca.

Supervision for expectant mothers is provided in Ithaca both through clinics and home visiting, through the activities of the Visiting Nurses Association and Family Welfare Committee. The Salvation Army also does some educational work in this field. One hospital provides twenty beds for obstetrical cases. Five nurses give full time to infant work and to children of pre-school age. Children of all ages are admitted to the child welfare station. A physician and nurses are in attendance. There are two milk stations. Three of the school playgrounds are open to children of pre-school age. They are supervised by teachers.

Throughout the rest of the county some supervision is given to expectant mothers through the Red Cross nurses. In all about twenty-five women were reached last year. There is a shortage of physicians for rural calls. Educational work is carried on by the Home Bureau and Red Cross by means of child welfare exhibits, pamphlets and lectures.

Ulster County

Contains 28 civil divisions (one city, 20 towns and seven incorporated villages), and has a total population of 94,212. Its mortality rate for infants in rural districts in 1921 was 68, and in Kingston 76.

No supervision is given to expectant mothers throughout this county, and there are no child welfare stations, but some educational work in this line is done by the Home Bureau in Rosendale, Denning, Saugerties, Gardiner, Hurley and New Platz.

There are four hospitals in the county which provide for obstetrical cases; one in Woodstock and three in Kingston, where 70 cases were cared for last year. A physician is sent out for home deliveries in Kingston. An insufficient number of physicians for rural cases is reported in Denning.

The Home Bureau employs a nutrition worker in Saugerties

and the manager of this organization in Denning gives what time she can to instruction of this kind. A milk station is provided in Saugerties. In several places lectures are given and in Warwarsing, Denning and Ellenville child welfare exhibits have been held. In Saugerties the Parent Teachers Association promotes this work.

Warren County

Contains 13 civil divisions (one city, 11 townships, and one incorporated village), and has a total population of 33,887. Its mortality rate for infants in rural districts in 1921 was 58, and in Glens Falls 88.

There is no organized work being carried on in the county along the line of maternal and infant hygiene except in Glens Falls and Queensbury. In the former place supervision is given expectant mothers in the homes and in a health center by the board of health. Thirty-five women were reached last year. Some of the mothers of Queensbury attend the Glens Falls Health Center and some work is done in their town by the Metropolitan Life Insurance Company, but this is limited to policy holders. N. Creek formerly employed a nurse but this work has been discontinued.

There is one hospital in Glens Falls which takes obstetrical cases and private rooms and four ward beds are available. This is hardly sufficient to meet the needs. There is no provision made for deliveries in the home. The Association Charities gives domestic help during confinement where it is needed.

Two public health nurses are employed by the city and they give part of their time to infant work.

The child welfare station in Glens Falls admitted 540 children under school age last year. This station is supervised by the board of health. Follow up work is carried on by the nurses. Further educational work is done through children's health consultations, newspapers and child welfare exhibits.

The county tuberculosis nurse does some general educational work in rural sections.

Washington County

Contains 26 civil divisions (17 townships and nine incorporated villages), and has a total population of 51,287. Its infant mortality rate for 1921 was 66.

The only supervision given in maternity and infant hygiene is confined to the villages where school nurses are employed and

this is only incidental and in connection with their other duties. These villages are Fort Edward, Salem, Granville, Whitehall and Cambridge.

There is one hospital in the county which has six beds for obstetrical cases.

Child welfare exhibits have been held in a few places and it is expected that a child welfare station will be opened in Granville with the public health nurse in charge.

Wayne County

Contains 24 civil divisions (15 townships and nine incorporated villages, and has a total population of 51,287. Its infant mortality rate in 1921 was 65.

There is no organized supervision in maternity hygiene and there are no child welfare stations in the county. Educational work is being done through the county Red Cross nurse in Sodus, Palmyra, Mandon, Huron, Butler, Savanah and Rose townships.

Private hospitals in Sodus, Newark and Lyons occasionally take obstetrical cases. One midwife is registered in Newark.

There is a village nurse and also a factory nurse in Newark and they give part of their time to infant work. Child welfare exhibits have been held. The public health nurse in Lyons also gives part of her time to infant work. Two welfare societies in Lyons provide nursing care and domestic help for poor mothers at confinement.

Westchester County

Contains 45 civil divisions (four cities, 18 townships and 23 incorporated villages), and has a total population of 101,477. Its mortality rate for infants in rural districts in 1921 was 85, White Plains 68, Yonkers 63, Mount Vernon 63, New Rochelle 61, Ossining 70, Peekskill 72.

Westchester is doing more than any other county in the state for its mothers and babies. In eight communities very well organized work is conducted along the lines of maternity hygiene. Yonkers, Mount Vernon, New Rochelle, Bronxville, White Plains, Mamaroneck, Peekskill and Ossining report clinics or health centers where instruction is given to expectant mothers. Arrangements are made for home visiting through the public health nurses in the towns of Eastchester, Rye, Lewisboro, New Castle, Scarsdale, Somers, Greenburg and Tarrytown, also some in Katonah

Village. The Women's Civic League in Tarrytown has been interested in starting a prenatal and postnatal clinic. The largest number of maternity cases in the county which are under the supervision of public health nurses is reported from the city of Mount Vernon.

Fourteen hospitals in the county care for obstetrical cases. The County Hospital in East View is well equipped for maternity cases, but as yet has not been very extensively used, only approximately 60 such cases having been cared for annually. This number should be doubled. A few of the townships report that nursing care during confinement in the homes is provided through local authorities. Fifty midwives are registered in the county.

Milk of excellent quality is supplied in some of the larger centers, but milk is also sold in many of them which is below the standard set by the State Milk Commission. This is true of Yonkers, New Rochelle, Tarrytown, Ossining and Irvington.

Yonkers employs four nurses for infant work. The White Plains Board of Health employs two infant welfare nurses and the Ossining District Nursing Association also employs two. In the other cities, townships and villages the public health nurses supervise infant care along with their other duties.

Sixteen communities report child welfare stations or health centers, Yonkers, New Rochelle, Mount Vernon, Bronxville, White Plains, Mount Kisco, Larchmont, Mamaroneck, Portchester, Rye Peekskill, Ossining, Hastings during summer months, Tarrytown, and the Purchase Child Hygiene Clinic, with stations at Harrison and Silver Lake.

Six hundred and seven children attended the health center in Yonkers last year, and 756 in Mount Vernon. Tarrytown village estimates about 100 children in attendance during the year.

Nutrition and the care of undernourished children is taught by the school nurses as well as the district nurses wherever they are employed. In Rye there is a home maintained for undernourished children.

Day nurseries are established in Yonkers, Mount Vernon, New Rochelle, Eastchester, White Plains, Rye, Ossining and Peekskill. A day nursery is reported as very much needed in the town of Portchester.

Table IV*

	Maternity Hygiene						Infant Hygiene						Hospital Facilities		
	Supervision by Nurses			Prenatal Clinics			Supervision by Nurses			Child Welfare Stations					
	Urban	Rural	None	Urban	Rural	None	Urban	Rural	None	Urban	Rural	None	No. of Hospitals	Maternity Beds	Beds for Children
Albany	X	X		X			X	X		X			5	67	77
Allegheny			X			X			X			X	1	7	4
Broome	X			X			X	X		X	X		5	67	15
Cattaragus	X	X		X			X	X		X	X		3	16	
Cayuga	X	X					X			X			2	4	5
Chautauqua	X	X		X	X		X	X		X	X		3	51	10
Chemung	X	X				X			X			X	2	12	11
Chenango			X			X			X			X	1	6	
Clinton	X			X			X			X			2	12	4
Columbia	X	X		X			X	X		X			1	3	6
Cortland	X					X	X			X			1	20	
Delaware		X				X		X				X			
Dutchess	X	X		X			X	X		X	X		4	36	13
Erie	X	X		X	X		X	X		X	X		14	125	325
Essex		X				X		X			X		2		
Franklin			X			X			X			X	2	12	
Fulton	X			X			X			X			1	5	
Genesee	X	X		X			X	X		X			2	11	5
Greene		X				X		X			X				
Hamilton			X			X			X			X			
Herkimer	X	X		X	X		X	X		X	X		3	8	
Jefferson	X			X			X	X		X	X		2	31	13
Lewis			X			X			X			X			
Livingston		X		X				X			X		1	5	
Madison			X			X		X				X			
Monroe	X	X		X			X	X		X	X		6	75	91
Montgomery			X			X	X			X			1	20	10
Nassau	X	X		X	X		X	X		X	X		1		10
Niagara	X			X			X			X			4	26	19
Oneida	X	X		X			X	X		X	X		9	117	52
Onondaga	X	X		X			X	X		X	X		9	128	93
Ontario	X					X	X	X		X			2	8	11
Orange	X	X		X			X	X		X			5	17	13
Orleans			X			X			X		X		2		
Oswego	X			X			X			X			2	6	6
Otsego			X			X	X			X			2	2	5
Putnam			X			X			X			X			
Rensselaer	X			X			X	X		X			4	42	92
Rockland		X			X		X	X		X	X		3		
St. Lawrence		X				X		X			X		3	40	40
Saratoga			X			X			X			X	2	3	3
Schenectady	X	X		X	X		X	X		X	X		2	15	12
Schoharie			X			X		X			X				
Schuyler			X			X			X			X	1	2	
Seneca			X			X			X			X	2	12	
Steuben	X			X			X			X			4	8	3
Suffolk		X				X		X			X		6	7	113
Sullivan			X			X			X			X			
Tioga			X			X			X			X			
Tompkins	X			X			X	X		X			1	21	6
Ulster			X			X			X			X	2	14	6
Warren	X			X			X			X			1	6	
Washington			X			X			X			X	1	7	
Wayne			X			X		X				X	1		
Westchester	X	X		X	X		X	X		X	X		12	97	133
Wyoming			X			X			X			X	1		
Yates			X			X			X			X			
Total Counties	29	25	21	26	7	29	31	30	17	31	21	19	Total 146	1,171	1,206

* Credit is given under the respective headings if work is carried on in a single community. The extent of such work can be ascertained by referring to the county summary and page 74.

WYOMING COUNTY

Has 25 civil divisions (16 townships and nine incorporated villages), and has a total population of 32,950. Its infant mortality rate in 1921 was 74.

No work along the line of maternal and infant hygiene has been inaugurated in this county and no supervision is given expectant mothers either in clinics or in their homes. There is one hospital in Warsaw but this does not care for obstetrical cases. There are thirty beds in the hospital which is not large enough to meet the needs of the community. Warsaw and Perry each have a maternity home.

For a year a school nurse was employed in Warsaw by the Red Cross. Her work was discontinued because of lack of funds.

There are no health centers or welfare stations in the county and no educational work is being done in dietetics or for children of pre-school age.

YATES COUNTY

Contains 13 civil divisions (nine townships and four incorporated villages), and has a total population of 18,841. Its infant mortality rate in 1921 was 79.

There is no organized supervision of expectant mothers, and there are no child welfare stations in the county.

The county tuberculosis nurse gives some directions to expectant mothers and instruction in baby care as she comes in contact with these cares, but her work has been more with older children, in organizing tonsil and adenoid clinics, etc. One hospital which is located in Penn Yan cared for about twelve obstetrical cases during the past year.

TABLE V

Prenatal Clinics and Child Welfare Stations in Cities

Population 1st class	*Cities*	*Prenatal Clinics*	*Child Welfare Stations*	*Infant Mortality Rate (Av'ge. of last three years)*
Pop. over 175,000	New York	*	*	79
	Buffalo	*	*	101
	Rochester	*	*	78
2nd class				
Pop. 50,000 to 175,000	Albany	*	*	79
	Binghamton	*	*	88
	Niagara Falls	*	*	99
	Schenectady	*	*	75
	Syracuse	*	*	89
	Troy	*	*	103
	Utica	*	*	84
	Yonkers	*	*	77

TABLE V—(Continued)

Population	*Cities*	*Prenatal Clinics*	*Child Welfare Stations*	*Infant Mortality Rate (Av'ge. of last three years)*
3rd class (A)				
Pop. 20,000	Amsterdam		*	89
to	Auburn		*	89
50,000	Cohoes	*	*	107
	Elmira			72
	Gloversville	*	*	78
	Jamestown	*	*	74
	Kingston			85
	Lockport			101
	Mount Vernon	*	*	68
	Newburgh	*	*	85
	New Rochelle	*	*	67
	Olean	*	*	84
	Oswego	*	*	83
	Poughkeepsie	*	*	85
	Rome		*	86
	Watertown	*	*	103
	White Plains	*	*	65
3rd class (B)				
Pop. 10,000	Batavia	*	*	98
to	Beacon		*	96
20,000	Corning			59
	Cortland		*	69
	Dunkirk	*	*	87
	Fulton		*	78
	Geneva		*	111
	Glens Falls	*	*	83
	Hornell	*	*	70
	Hudson	*	*	76
	Ithaca	*	*	73
	Johnstown		*	92
	Lackawanna		*	112
	Little Falls	*	*	78
	Middletown			80
	North Tonawanda		*	98
	Ogdensburg			152
	Oneida			63
	Oneonta		*	57
	Peekskill (village)	*	*	78
	Plattsburg	*	*	105
	Port Chester (village)		*	59
	Port Jervis		*	112
	Rensselaer			75
	Saratoga Springs			71
	Tonawanda			90
	Watervliet			89
3rd class (C)				
Pop. under	Canandaigua		*	75
10,000	Glen Cove	*	*	68
	Mechanicsville			77
	Norwich			72
	Ossining (village)	*	*	53
	Salamanca			93
	Total No. of Cities	33	47	

TABLE VI

Prenatal Clinics and Child Welfare Stations in Villages

Villages	*Prenatal Clinics*	*Child Welfare Stations*
Amityville		*
Babylon		*
Bronxville	*	*
Catskill		*
Clark Mills		*
Clinton		*
Dansville		*
Endicott		*
Fredonia		*
Geneseo		*
Gowanda		*
Grand View		*
Great Neck	*	*
Hastings		Summer
Haverstraw		*
Hounsfield		*
Ilion		*
Islip		*
Johnson City		*
Kenmore		*
Larchmont		*
Lancaster	*	*
Lawrence	*	*
Le Roy		*
Locust Valley		*
Mamaroneck	*	*
Massena		*
Mount Kisco		*
Mohawk	*	*
North Tarrytown		*
Nyack		*
Ossining	*	*
Patchogue		*
Peekskill	*	*
Port Chester		*
Port Washington		*
Purchase		*
Rhinebeck		*
Roslyn		*
Rye		*
Solvay		*
Upper Nyack	*	*
Warwick		*
Weedsport		*
Westbury	*	*
Williamsville		*
Total villages	10	46

TABLE VII

Children's Health Consultations and Healthmobile Visits

Conducted by the Child Hygiene Division of the State Department of Health

Year	*County*	*No. Places Visited*		*No. Children Examined*
1920	Chenango	21		680
	Fulton	13		126
	Livingston	19		488
	Orange	20		710
	Schoharie	18		388
		99		2725
1921	Allegany	8		568
	Cattaraugus	10		557
	Clinton	2		29
	Dutchess	1		32
	Erie	3		275
	Essex	3		96
	Franklin	1	(Ind. Res.)	189
	Herkimer	2		205
	Jefferson	9		592
	Lewis	5		256
	Madison	1		81
	Niagara	9		396
	Oneida	3		211
	Orleans	10		307
	Oswego	9		482
	Otsego	8		290
	Putnam	4		187
	St. Lawrence	10		462
	Suffolk	5		92
	Warren	8		262
	Wayne	1		40
		112		5609
Grand Total		211		8334

TABLE VIII

Cities	*Milk Stations*	*Little Mothers' Leagues*	*Day Nurseries*	*Playgrounds**
Albany	2	5	2	5
Amsterdam	No	No	1	Day Nursery
Auburn	1 in summer	No	1	8
Batavia	No	No	No	3
Beacon	No	Yes	No	3
Binghamton	No	No	1	20
Buffalo	Milk is given on recommendation of nurses	Yes	1 public 5 private	16
Canandaigua	No	No	No	No
Cohoes	1	Yes	1	3
Corning	No	No	No	1
Cortland	No	No	No	?
Dunkirk	No	Summer months	1	Day nursery
Elmira	No	No	1	2

* Most of these are school playgrounds which are open to pre-school children also.

TABLE VIII—(Continued)

Cities	*Milk Stations*	*Mothers' Leagues*	*Nurseries*	*Playgrounds*
Fulton	No	Yes	No	1
Geneva	No	Yes	1	4
Glen Cove	Yes	2	No	2
Glens Falls	1	No	No	School
Gloversville	No	Yes	1	No
Hornell	No	No	1	1
Hudson	No	No	No	No
Ithaca	2	No	No	3
Jamestown	No	Yes	1	7
Johnstown	No	No	No	No
Kingston	No	No	No	No
Lackawanna	No	No	No	1
Little Falls	No	No	1	5
Lockport	No	No	No	No
Mechanicville	No	?	No	?
Middletown	No	No	1	3 for schools
Mount Vernon	No	No	1	2, 1 sch., 1 nurs.
Newburg	No	No	1	1
New Rochelle	2	Yes	1	Schools
Niagara Falls	No	Yes	No	5
North Tonawanda	No	1	No	No
Norwich	No	No	No	No
Ogdensburg	No	No	No	No
Olean, for undernourished		2	No	7
Oneida	No	Yes	No	No
Oneonta	No	No	No	School
Ossining Village	1	No	1	1
Oswego	No	1	No	No
Peekskill Village	No	?	Yes	No
Plattsburg	No	Yes	No	No
Port Chester Village	1	Yes	No	School
Port Jervis	No	No	No	Yes
Poughkeepsie	No	3	1	6
Rensselaer	No	?	No	?
Rochester	2	Yes	2	Yes
Rome	No	?	No	?
Salamanca	No	No	No	?
Saratoga Springs	No	No	No	No
Schenectady	No	Yes	27	3 parks
Syracuse	No	Yes	1	Yes
Tonawanda	?	No	No	?
Troy	1	Yes	2	8
Utica	2	Yes	2	15
Watertown	No	No	No	No
Watervliet	No	No	No	No
White Plains	No	Yes	1	1 summer
Yonkers	4	Yes	1	1 school, 1 park
Total.... 60	12	25	27	39

SUMMARY

I. Prenatal Care

Provision by local communities for the supervision of expectant mothers is one of the newer fields of public health work and in most counties very little is being done except in the large cities. In 21 counties nothing is being done whatever. Half of the cities in this state now have prenatal clinics with physicians and nurses in attendance where women can come for examination and advice. Thirteen of our larger villages have also provided clinics. In all, forty-three communities are supporting such work either through public or private funds or a combination of both. In most cases these clinics or health centers are established first through the activity of some private organization and later taken over by the municipality. Twenty-nine cities, six of which have a population of over 20,000, have as yet no prenatal clinics. In some of these cities supervision and general instructions in the hygiene of pregnancy are given through visiting nurses who come in contact with women in their homes while on other duties, and who keep in touch with them. Such an arrangement in a city is valuable when carried on in connection with a clinic, but cannot take the place of the latter.

In the villages which have one or more community nurses supervision is sometimes given to expectant mothers. This consists usually of a few visits with simple instructions. Most of these nurses do bedside work in addition to the public health work, and many have the visiting of schools included in their various duties, so maternity hygiene activities are more or less incidental and occur simply as the nurse comes in contact with such cases in the families of school children which she is visiting, etc.

Throughout rural sections practically nothing is being done except in a very few counties which are fairly thickly populated, notably Erie, Dutchess, Livingston, Monroe, Nassau, Rockland and Westchester. Each of these counties either contains or is adjacent to a ctiy of the first class except Dutchess. In Chemung the county nurse undertook a piece of demonstration work in this field last year. She visited women in rural sections and had twenty cases under her supervision. About 300 babies are born annually in this county, so she had about 6% of all such cases under her care.

Attempts to establish prenatal work have been made but given up in a few places. The cause of such a failure is sometimes laid at the door of local physicians for their lack of cooperation. Sometimes the personality of the nurse is held responsible, and sometimes the local committee has failed to make the most suitable arrangements for the work.

We found no communities in which special protection was given to expectant mothers in industry or that had maternity benefits or insurance.

II. Care at Birth.

In forty-one counties some public provision is made for hospital care of maternity cases and in five more there are small private hospitals which occasionally take emergency cases. Eleven counties have no hospitals. These are Delaware, Essex, Greene, Hamilton, Lewis, Putnam, Schoharie, Sullivan, Tioga, Wyoming and Yates. In only the largest cities are any arrangements made for delivery of women in their own homes by physicians sent from the hospitals. (See Table 4.)

The number of physicians available for rural calls is often insufficient. There are about 250 municipalities at the present time which have no physician, and a number of cases were reported where no physician could be obtained. Sometimes a nurse can reach these women, but in most cases there are only members of the family or a neighbor in attendance. In mountainous counties the nurses have to travel on horseback and we occasionally get reports of great hardships endured such as crossing through rapids in a canoe at night during the winter to go to a woman in confinement. The shortage of physicians in rural communities has become a very serious problem. Two factors have been bringing this about. In the first place, fewer physicians are graduating from the medical schools. This is due both to a reduction in the number of medical schools and to a raising of the requirements and standards of work in the schools which remain. These schools can take also only a limited number of students. The result is that while the efficiency and quality of medical work have been greatly improved, the total number of physicians available is about one-third what it was thirty years ago. The second factor in creating a shortage in rural sections is the tendency of these physicians to locate in cities. The average

period of a physician's practice has been estimated at about 30 years, and a very large proportion of the men in country practice are nearing the end of their active years. The average age of the health officers in the state today is considerably over 50 years and "large numbers of our health officers are men of sixty-five, seventy, seventy-five, and some even eighty years of age."*

According to a regulation of the Public Health Council no one should be appointed a health officer who is over sixty-five, but in many municipalities the only physician in the community is over this age limit and as these men die or retire it is difficult to fill their places. Eighty-two municipalities appealed to the State Department of Health because they had no medical service of any kind, and thirty-four of the vacancies were filled.

The control of the practice of midwifery was placed under the State Department of Health in 1914. Since that time an annual renewal of a license to practice has been required, and the method of checking up the names of midwives reporting births with the list of those licensed, as well as investigation of all instances of reported practice without a license, has resulted in about doubling the total number of licenses issued. This does not represent an increased tendency to call on midwives, however, for the actual number of births attended by midwives has dropped from 16% in 1916 to 12.4% in 1920. It is also of interest that about 80% of white mothers under midwife care are foreign born. In 1921, 432 licenses were issued in this state, exclusive of New York and Rochester. Thirteen licenses were withheld, two were cancelled, and there was one prosecution. Fifty-two new applications were received, and twenty-two were able to qualify.

One of the most urgent needs both in cities and rural communities is for domestic help during the period of confinement. In a very few places arrangements of this sort are made by private organizations, but it is much more common to find nursing care provided. This consists usually of a brief daily visit and poor mothers are frequently obliged to get up too soon after confinement in order to attend to their household duties and other children.

(* From abstract of an address by Hermann M. Biggs, M.D., LL.D., Commissioner of Health, at the annual Convention of the N. Y. State League of Women Voters, in Albany, January, 1922.)

III. Care of the Infant and Child of Pre-School Age.

Each of the cities with a population of over 50,000 employs several public health nurses who devote their entire time to infant work alone or to this plus work with children of pre-school age. These cities are Buffalo, Rochester, Albany, Binghamton, Niagara Falls, Schenectady, Syracuse, Troy, Utica and Yonkers. Of the remaining 48 cities only 10 have one or more full-time nurses for infant work. These are Oswego, Poughkeepsie, Rome, Watertown, White Plains, Batavia, Dunkirk, Fulton, Ithaca and Lackawanna. One village, Ossining, employs two full-time infant welfare nurses, and averaging figures for the last three years, this community has had the lowest infant mortality rate of any city, town or village during that period. This rate is 53 (*i.e.*, babies under one year of age die at the rate of 53 out of 1,000 living births). The general urban mortality rate throughout New York State during that period was 87 and the rural mortality rate was 76.

In most large cities the nurses are employed by the departments or boards of health. In smaller places the Red Cross or visiting nurses association often assumes the responsibility either entirely or jointly with the municipality. In rural sections the county nurses employed by tuberculosis societies and Red Cross organizations are frequently giving some of their time to infant work. This is usually more of an educational nature than direct supervision of individual babies. Lectures, child welfare exhibits and home nursing classes provide opportunity for instructing mothers in the fundamentals of baby care, and these organizations are often found cooperating with local clubs and the State Department of Health in arranging for single clinics or child health consultations. Usually there is but one nurse for the entire county and she is engaged in all forms of public health activity, with most of her time devoted to tuberculosis work. This means that she can reach only a small part of the county with her infant welfare work. In some counties these nurses do no infant work at all. Much depends upon the policy of the county committees. If they are organized primarily as anti-tuberculosis societies it is only natural that their activities should be limited to that field and only incidental attention given to questions of maternity and infancy hygiene. The latter are considered simply in relation to the problem of prevention of tuberculosis. In some counties the Home Bureaus do educational work in the field of baby care

through their nutrition workers. The county boards of child welfare have charge only of the granting of allowances to needy families.

Child Welfare Stations are located in 92 communities in this state. (See Map p. 74 and Tables V & VI.) The majority of these have chiefly infants in attendance but some receive also children of pre-school age. In the large cities these are open daily, but in a number of villages they are open once a week, once in two weeks, or once a month. Single annual clinics have not been included in this list. The child welfare stations are usually maintained by the same organizations that employ the public health nurses.

The work that is being done by the Division of Maternity, Infancy and Child Hygiene of the State Department of Health must be mentioned here. This consists of single clinics or children's health consultations held in small communities with the cooperation of local committees. Physicians and nurses are sent by the State Department and examinations are made of children and advice as to treatment given to parents. The follow-up work is placed as far as possible in the hands of local agencies. A travelling automobile clinic called the "healthmobile" is used on many of these occasions, and it has proved to be very successful and popular. Moving pictures are shown and informl talks are given. During 1920 six counties were visited with 2,725 children examined, and in 1921 5,609 children were examined in twenty-one counties. (See table VII).

The milk supply varies a great deal in quality in different sections of the state. A great deal of milk is being sold which comes from non-tuberculin tested cows and the communities which maintain the standards set by the New York State Milk Commission are few in number. The Commission recommended that all milk of Grade B or under should be pasteurized, and that milk for retail trade should be sold in bottles. In most of our large cities this milk is pasteurized, but dip milk is still being sold. Eight cities and villages reported that all milk of Grade B and C was pasteurized and that bottles were always used for retail trade. These were Buffalo, Elmira, Poughkeepsie, Schenectady, Canandaigua, Geneva, Newark and Hastings-on-Hudson. Milk stations which supply needy families with milk either free or at small cost are found in 12 communities. (See table VIII.)

One of the educational measures most frequently found in both cities and villages is the Little Mothers League. This is a group of young girls over 12 years of age who are taught personal hygiene and methods of baby care. Such leagues were reported from 25 communities.

Day nurseries are found in 27 cities and are usually maintained by private funds. Playgrounds which are open to preschool children were found in 39 communities. A few of these are in connection with the day nurseries and many of the others are the regular school playgrounds which are designed primarily for older children. The need of supervised play for children of this age period has hardly been recognized yet.

RECOMMENDATIONS

1. Maternity hospitals should be established or provisions for proper maternity care made available in every county of the state. No woman should have to face the possibility of neglect or lack of proper care at this extremely important crisis of her life. The establishment of maternity hospitals can serve as a further inducement for getting competent physicians to care for the medical practice of the community. One such hospital may be made to serve one or more counties.

2. In those parts of the state where women have to depend upon midwives, there should be an insistence upon local registration and the necessary supervision which will maintain the practice of these women at a standard at least as high as that which is demanded by the State Department of Health. The method which ignores the midwife and allows her to practice without supervision we believe to be deplorable and we are convinced that the maintenance of a high type of midwifery is essential if we hope to reduce the maternal mortality rate and the deaths at birth or during the first few days of life.

3. The high death rate of infants during the first month of life calls attention to the serious need of better prenatal conditions and care. It is not suggested that each county establish prenatal clinics at once but a beginning in this direction should be made and prenatal work can ultimately become a valuable part of the work of the maternity hospitals. Where infant welfare stations or baby health stations or child welfare stations are maintained, prenatal care should be a part of their function and it is not

too much to hope that even the county nurse, with her many duties, may feel that one of the most important is to see that every pregnant woman with whom she comes into contact has the proper advice and supervision.

4. For the reduction of the infant mortality rate, baby health stations or visiting nurses should be maintained in every part of the state, sufficient to see that no baby who otherwise would be neglected goes without proper supervision. In the present stage of our knowledge of the effectivenss of public health work for the prevention of infant mortality, a one hundred per cent program of efficiency must be considered the minimum. No county, no city, town or village can afford to do less than give its babies every measure of protection. There is no reason why the baby death rate in New York State outside of New York City should be higher than that in New York City; there is every reason why it should be lower. Cities and towns where sufficient infant welfare nurses have been used report low baby death rates; those with inadequate supervision show invariably high death rates. Every unnecessary infant death is an indictment of the lax method of the community. In no field of public health work are the results more sure and certain nor can more valuable results be obtained for the money expended than in the field of infant welfare work. The infant death rate of New York State can be reduced just as rapidly as its citizens choose to accomplish this result.

5. In all child welfare stations provision should be made for the child of pre-school age. This age, from two to six years, ranking as it does next to infancy in its high death rate and even more susceptible than the period of infancy to the sicknesses and deaths caused by infectious diseases, is one which is rapidly claiming attention. Children of pre-school age should have a physical examination at least once a year, their mothers should have health instruction both in the stations and at home and the child at this hitherto neglected but increasingly important period of life should have the same health care that is being suggested and in many cases provided for the infant and school child.

To summarize, New York State at the present time has an indefensibly high infant mortality rate and a maternal mortality rate that are capable of great reduction. The methods of reducing both of these rates have been clearly outlined and the necessary supervision, instruction and guidance are available under the

Division of Maternity, Infancy and Child Hygiene of the State Department of Health. It remains for each local community to do its part. Only by the maintenance of properly equipped child welfare stations, sufficient and effective maternity hospitals or other maternity service and the use of visiting nurses for rural communities can this be achieved. If New York State chooses, it can have the lowest maternal and infant mortality rates of all the States in the Union. It is simply a question of local interest, moderate expenditure and the following of well-established methods.

APPENDIX

EDUCATION LAW

ARTICLE 20A

Medical Inspection

§ 570 MEDICAL INSPECTION TO BE PROVIDED. Medical inspection shall be provided for all pupils attending the public schools in this State, except in cities of the first class, as provided in this article. Medical inspection shall include the services of a trained registered nurse, if one is employed, and shall also include such services as may be rendered as provided herein in examining pupils for the existence of disease or physical defects and in testing the eyes and ears of such pupils. [*Added by L. 1913, ch. 627.*]

§ 571 EMPLOYMENT OF MEDICAL INSPECTORS. The board of education in each city and union free school district, and the trustee or board of trustees of a common school district, shall employ, at a compensation to be agreed upon by the parties, a competent physician as a medical inspector, to make inspections of pupils attending the public schools in the city or district. If appointed by a board of education of a city such physician shall reside within the city. The physicians so employed shall be legally qualified to practise medicine in this State, and shall have so practised for a period of at least two years immediately prior to such employment. Any such board or trustees may employ one or more school nurses, who shall be registered trained nurses and authorized to practise as such. Such nurses when so employed shall aid the medical inspector of the district and shall perform such duties for the benefit of the public schools as may be prescribed by such inspector.

A medical inspector or school nurse may be employed by the trustees or boards of education of two or more school districts, and the compensation of such inspector, and the expenses incurred in making inspections of pupils as provided herein, shall be borne jointly by such districts, and be apportioned among them according to the assessed valuation of the taxable property therein.

In cities and union free school districts having more than five thousand inhabitants, the board of education may employ such additional medical inspectors as may be necessary to properly inspect the pupils in the schools in such cities and union free school districts.

The trustees of a common school district or the board of education of a union free school district whose boundaries are coterminous with the boundaries of an incorporated village shall, in the employment of medical inspectors, employ the health officer of the town in which such common school district is located or the health officer of such union free school district, so far as may be advantageous to the interests of such district. [*Added by L. 1913, ch. 627, and amended by L. 1916, ch. 182.*]

§ 572 PUPILS TO FURNISH HEALTH CERTIFICATES. A health certificate shall be furnished by each pupil in the public schools upon his entrance in such schools, and thereafter at the opening of such schools at the beginning of each school year. Each certificate shall be signed by a duly licensed physician who is authorized to practise medicine in this State, and shall describe the condition of the pupil when the examination was made, which shall not be more than thirty days prior to the presentation of such certificate, and state whether such pupil is in a fit condition of bodily health to permit his or her attendance at the public schools. Such certificate shall be submitted within thirty days to the principal or teacher having charge of the school and shall be filed with the clerk of the district. If such pupil does not present a health certificate as herein required, the principal or teacher in charge of the school shall cause a notice to be sent to the parents of such pupil that if the required health certificate is not furnished within thirty days from the date of such notice, an examination will be made of such pupil as provided herein. [*Added by L. 1913, ch. 627.*]

§ 573 EXAMINATIONS BY MEDICAL INSPECTORS. Each principal or teacher in charge of a public school shall report to the medical inspector having jurisdiction over such school the names of all pupils who have not furnished health certificates as provided in the preceding section, and the medical inspector shall cause such pupils to be separately and carefully examined and tested to ascertain whether any of them are suffering from defective sight or hearing, or from any other physical disability tending to prevent

them from receiving the full benefit of school work, or requiring a modification of such work to prevent injury to the pupils or to receive the best educational results. If it be ascertained upon such tests or examination that any of such pupils are inflicted* with defective sight or hearing or other physical disability as above described the principal or teacher, having charge of such school, shall notify the parents or other persons with whom such pupils are living, as to the existence of such defects and physical disability. If the parents or guardians are unable or unwilling to provide the necessary relief and treatment for such pupils, such fact shall be reported by the principal or teacher to the medical inspector, whose duty it shall be to provide relief for such pupils. [*Added by L. 1913, ch. 627.*]

§ 574 RECORD OF EXAMINATIONS; EYE AND EAR TESTS. Medical inspectors or principals and teachers in charge of public schools shall make eye and ear tests of the pupils in such schools, at least once in each school year. The State Commissioner of Health shall prescribe the method of making such tests, and shall furnish general instruction in respect to such tests. The Commissioner of Education, after consultation with the State Commissioner of Health, shall prescribe and furnish to the school authorities suitable rules of instruction as to tests and examinations made as provided in this article, together with test cards, blanks, record books and other useful appliances for carrying out the purposes of this article. The Commissioner of Education shall provide for pupils in the normal schools, city training schools and training classes instruction and practice in the best methods of testing the sight and hearing of children. [*Added by L. 1913, ch. 627.*]

§ 575 EXISTENCE OF CONTAGIOUS DISEASES; RETURN AFTER ILLNESS. Whenever upon investigation a pupil in the public schools shows symptoms of smallpox, scarlet fever, measles, chicken pox, tuberculosis, diphtheria, influenza, tonsillitis, whooping cough, mumps, scabies or trachoma, he shall be excluded from the school and sent to his home immediately, in a safe and proper conveyance, and the health officer of the city or town shall be immediately notified of the existence of such disease. The medical inspector shall examine each pupil returning to a school without a certificate from the health officer of the city or town, or the

* So in original.

family physician, after absence on account of illness or from unknown cause.

Such medical inspectors may make such examinations of teachers, janitors and school buildings as in their opinion the protection of the health of the pupils and teachers may require. [*Added by L. 1913, ch. 627.*]

§ 576 ENFORCEMENT OF LAW. It shall be the duty of the Commissioner of Education to enforce the provisions of this article, and he may adopt such rules and regulations not inconsistent herewith, after consultation with the State Commissioner of Health, for the purpose of carrying into full force and effect the objects and intent of this article.

He may, in his discretion, withhold the public money from a district which wilfully refuses or neglects to comply with this article, and the rules and regulations made hereunder. [*Added by L. 1913, ch. 627.*]

§ 577 STATE MEDICAL INSPECTOR OF SCHOOLS. The Commissioner of Education shall appoint a competent physician who has been in the actual practice of his profession for a period of at least five years, as state medical inspector of schools. The state medical inspector of schools, under the supervision of the Commissioner of Education, shall perform such duties as may be required for carrying out the provisions of this article. The said medical inspector shall be appointed in the same manner as other employees of the Education Department. [*Added by L. 1913, ch. 627.*]